

A. PODKOLZIN

A short economic history of the USSR

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Edited by G. Ivanov-Mumjiev

А. М. Подколзин

КРАТКИЙ ОЧЕРК ЭКОНОМИЧЕСКОЙ ИСТОРИИ СССР

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Publishers' Note

We have received many letters from abroad requesting the publication of a book on the history of Soviet economy. They express admiration for the enormous economic progress made by the Soviet people in the fifty years since the Great October Socialist Revolution that has transformed backward tsarist Russia into a highly advanced country which now ranks second in the world for industrial production and has wrought far-reaching cultural and social changes. Today, when many countries have thrown off the colonial yoke and have launched upon independent economic development, they say, Soviet experience of economic upbuilding elicits universal interest.

It is in compliance with these requests that we are publishing *A Short Economic History of the U.S.S.R.* by A. M. Podkolzin.

The book gives a general idea of Russia's economy before the revolution, and describes the landmarks in the country's economic development following the establishment of Soviet power.

Although it is not a monograph for specialists and does not contain a detailed record of the economic growth of the U.S.S.R., we hope it will give the reader a fairly comprehensive picture of the basic problems and stages in the Soviet economic development.

Chapter I

THE ECONOMY OF FEUDAL RUSSIA

1. The Feudal and Serf System of Economy and Its Distinctive Features in Russia

The economic foundations of the now mighty Soviet socialist state were laid centuries ago on the territory of Eastern Europe, Transcaucasia and Central Asia. Here, as elsewhere, different socio-economic formations—primitive-communal, slave-owning,* feudal and capitalist—succeeded one another. Then, as a result of the Great October Revolution, came the victory of socialism which became firmly established in the country. At present the Soviet Union is successfully building the material and technical basis of communism.

It goes without saying that this general law of historical development takes into account the specific features of development of a given country. Moreover, there have been many serious deviations from this general scheme and even cases of one or another formation falling out of it.

As for the economic development and the social and political life of the peoples inhabiting the U.S.S.R., the primitive-communal system prevailed here for thousands of years. Feudal relations first appeared in Kiev Rus only in the 9th century.

The growth of the productive forces and the resulting inequality in property status in the first millennium A. D. led to the formation of a class society and the state which was destined to secure the domination of one class over another.

* The slave-owning system did not spread over the entire territory of the country.

The above-mentioned specific features strikingly manifested themselves at that stage of socio-economic development in Eastern Europe. The primitive-communal system here was supplanted by feudalism and not the slave-owning form of social organisation.*

This fact is explained by the country's specific social and economic conditions arising from the prolonged prevalence of communal-patriarchal relations and the clan system in Rus.

It should be borne in mind in this connection that the level of production of the Eastern Slavs in the 6th-9th centuries was incomparably higher than in the ancient slave-owning countries in the period of state formation. The general level of production in Rus made slave labour unprofitable.

State formations evidently appeared in Eastern Europe as far back as the 8th century. At any rate, ancient writers mentioned three comparatively small states: Kuyaba, Slavia and Artania.

A turning point in the history of the Slav peoples was the formation of the Ancient Russian State on the vast expanses of Rus, with Kiev as its capital. This took place in 882, when the Novgorod and Kiev principalities merged into a state generally known as Kiev Rus.

A study of the socio-economic structure of Kiev Rus, as described in the written documents of the period (*Russkaya Pravda* [Russian Law] and *Povest Vremennykh Let*, [Chronicle of Contemporary Years]), shows that it was a feudal state all through its existence, that is, from the 9th to the 12th century.

Although feudal relations take on different forms in different localities and countries, they always presuppose the dependence of the peasant, the direct producer, on the feudal landowner as regards land and material welfare.

Since land in those days was the chief means of production, the character of landownership was the determining factor in the system of feudal relations of production.

The ancestral lands of a prince or any other rich landowner were usually divided into two parts, the lord's and

* The slave-owning system on the territory now occupied by the Soviet Union existed only in the ancient southern states: Urartu in Transcaucasia, the Central Asian states and the Scythian, Bosphorus and Greek city-states on the Black Sea Littoral.

the peasants'. The latter was allotted to the peasants in remuneration for their labour on the feudal lord's land. Working on his strip, the peasant produced the necessary product; the labour he put in on the feudal lord's land yielded the surplus product which the feudal lord appropriated.

In agriculture, the surplus product created directly by the producer (the peasant) and appropriated by the landowner is called ground rent.

Under feudalism there were three principal forms of ground rent, namely, labour rent (*corvée*), rent in kind and money rent, which successively replaced each other.

In order to pay labour rent the peasant worked several days a week for the landowner and the rest on the allotment which was factually his own.

A peasant paid rent in kind, or natural rent, by handing to the landowner the surplus product in its natural form—grain, meat, butter, etc.

Money rent, a form of rent in kind, was paid with the money obtained by the producer from the sale of his products.

These forms of rent frequently intertwined with one another on account of the prevailing local conditions.

But whatever the forms of ground rent, the land allotted to the peasant served as a form of wages in kind for the peasant and a means of assuring a landed estate with labour.

Alongside large feudal property there existed the private property of peasants and handicraftsmen who owned land and the implements of production.

To prevail, such a system of economy required, first, predominance of natural economy whose produce was intended for inter-economic consumption; secondly, allotment of the means of production in general and land in particular to the direct producer; thirdly, personal dependence of the peasant on the landowner, that is, existence of conditions for non-economic coercion of the peasants (it is clear that without such dependence a peasant possessing the means of production would not have worked for the lord). Lastly, this sort of economy could exist only when primitive implements were used. In conditions of economic stagnation there was no efficient technical equipment for it requires a large market for its produce,

employment of wage-labour and other factors promoting the productivity of labour.

A mere description of the general features common to all countries at all times gives a far from complete picture of the feudal system or any other socio-economic formation.

It is no less important to define the manner in which these features manifest themselves in given conditions. For instance, it would be erroneous to identify Russian feudalism and its socio-economic structure with the feudalism of the West.

We have already said that feudal social relations did not emerge among the Slav peoples in the East as a result of the decline of the slave-owning system, but were a direct consequence of the primitive clan and tribal relations.

Feudal relations among the Eastern Slavs matured in the 9th century and not in the 5th-6th centuries as was the case in the West, while the survivals of communal relations made themselves felt long after feudalism had prevailed.

The rate at which feudalism developed in Russia was different from that in the West-European countries. The feudalisation of the Slav landowner was not so rapid or profound as it was in France or other European countries.

Feudal dependence in Russia never assumed the form of strict subjection and was limited solely to payments of "tribute". The slow rate of feudalisation and the imperfect forms of subjection impeded the transformation of the big landowners into independent local "sovereigns" or barons as was the case in the West. The era of feudalism in Russia lasted 1,000 years, from the 9th to the 19th century. In this period the entire mode of the country's economic and political life naturally underwent major changes. Hence the whole feudal period has to be divided into several stages: a) early feudalism (9th-12th centuries), when relations of production typical of this period gradually came to predominate; b) the period of developed feudalism (13th-14th centuries) and the attending political division of the state; c) the period of late feudalism (15th-17th centuries), characterised by the abolition of disunity and the formation of a single centralised state and legalisation of serfdom; d) the period of the absolutist feudal-serf system of economy (18th century), when feudal relations reached their peak and the beginnings of capitalist relations made

their appearance; e) the decline of serfdom (end of the 18th-mid-19th centuries), and the growth of the capitalist economy which led to the abolition of serfdom in 1861.

2. Agriculture as the Foundation of Economic Activity

In dealing with this branch of the economy it is most important to discuss the following problems: the nature of and changes in the forms of landownership; the development of farm implements and farming, and serfdom as a form of exploitation and a means of ensuring agriculture with labour.

Feudal ownership of land was based on relations of domination and subjection because the bulk of the land was in the hands of private owners. Although communal ownership of land had been preserved to some extent, the feudal class was in a position to keep the peasant masses in economic dependence.

Consolidation of feudalism meant primarily gradual dispossession of the peasants of the land and its appropriation by the big landowners.

Private ownership of land in Russia first appeared before the Kiev state was formed. In the 9th century, under the influence of feudal state power, this form of ownership began to develop considerably faster. Land then was owned by princes, boyars and church dignitaries. Initially, private owners increased their holdings by laying claim to large tracts of vacant land. Soon this source of enrichment exhausted itself. Besides, the feudal lords did not want just any land, but land that was fertile, conveniently situated and inhabited. So they turned to the land owned by members of communes, or *smerds*, as they were called at the time. Communal lands were seized by the boyars, the most influential and wealthy people in feudal society. The system of land tenure was regulated by *votchina** rights under which the owner could leave his estate to his heir, sell it, mortgage it, and so forth. In the 11th-15th centuries the *votchina* system was the principal form of feudal land tenure in Russia. The number of big landowners and the size of hereditary estates increased with

* The word *votchina* derives from *otchina* meaning patrimony.

every passing century as a result of the seizure of communal lands, appropriation of vacant tracts, grants, purchases, exchanges, and so forth. Since the big land-owners were the mainstay of state power, it served this class and safeguarded its immunity rights.*

The influential boyars usually had their own vassals whose services they rewarded with land and peasants.

The *votchina* system was most widespread in the 12th-15th centuries, when Rus was divided into feudal states.

In the mid-14th century, and particularly in the 15th century, *votchina* rights were steadily curtailed following the unification of Russian lands into a single centralised state and the rise of the Grand Duke's authority.

The boyars who possessed hereditary lands constituted the reactionary force that opposed the centralisation of the state and authority. At the close of the 15th and the beginning of the 16th century, when Novgorod, Tver and Pskov joined the Moscow Principality, its Grand Duke confiscated much of the land owned by the boyars and distributed it among his faithful servants, the *dvoryanstvo* (nobility). A decisive blow was dealt to the *votchina* system by the *oprichnina*** introduced by Ivan the Terrible in 1565.

The *oprichnina* was a system of extraordinary measures for smashing the opposition of the boyars and the princes and consolidating the centralised Russian state. Ivan the Terrible formed a special army of *oprichniki* to remove the diehard opponents of the central authority, confiscated their ancestral estates and turned them over for temporary use to the *dvoryanye* in the *oprichnina* service.

In the central districts these measures assumed such proportions that the *oprichniki* subsequently found themselves in possession of a considerable part of the land, and a special department was set up at the court to administer this territory in 1572-84.

For the duration of service in the *oprichnina* the *dvoryanstvo* were allotted lands which were called estates, and this led to the formation of a new type of ruling class in feudal Russia, that of landowners.

* Immunity rights, the rights granted to feudals to perform certain state functions—pass judgment, collect taxes, and so forth.

** *Oprichnina*, from the ancient Russian word *oprich* meaning except, apart, separately.

The estate system of land tenure, which started ousting the *votchina* system at the time the state was being centralised, lasted right up to the 18th century. In 1714 Peter I granted the estate owners the right to leave their land to their heirs, and the *Manifesto on the Freedom of the Nobility* of February 18, 1762, abolished compulsory military service for the landowners.

The terms "estate" and "landowner" remained in Russia, but their meaning changed completely.

In the 18th century the government met the landowners' demands and virtually re-established many features of the *votchina* system.

The dispossession of the peasants of their land was intensified, particularly in the European part of Russia, in the first half of the 19th century, when the portion of the cultivated land belonging to landowners in the non-black-earth areas rose from 14 to 25 per cent, and from 18 to 49 per cent in the black-earth belt.

On the whole, the peasants owned about a third of the land on the landowners' estates in the European part of Russia in the 1850s.

As for the development of agriculture and farming methods, Russia made very little headway during the centuries of feudalism. Crop farming was the principal branch of agriculture throughout the period of feudalism. Initially, in Kiev Rus, agriculture was based on two systems, fallow and two-field. Under the first system, land was planted to a specific crop for several successive years and then left uncultivated for a long period.

Under the second system, half the land was systematically cultivated and then left fallow while the other half was planted to crops. Subsequently, further progress was achieved in the organisation of agriculture. Then came the three-field system, under which a field was first sown to winter crops, then, in the following year, to spring crops, and left fallow in the third year. This made it possible to cultivate greater tracts of land and to raise crop yields. That, unfortunately, was the end of radical innovations in this branch of the economy.

In Russia the three-field system predominated not only under the feudal system, but also under the capitalist mode of production.

Among the most widespread crops in Russia were rye, wheat, oats, millet and buckwheat. There were practically no changes during the entire epoch of feudalism. It was somewhat later that new crops were introduced on a limited scale.

The breeding of draught animals—horses and oxen—and cows, sheep, goats and pigs was another important branch of agriculture.

The princes, boyars and monasteries owned thousands of head of cattle, while the peasants had either very few or none at all.

By the beginning of the 19th century, one in every three or four peasant households in the European part of Russia had no horses.

It is easy to understand the plight of peasant farms which had neither draught animals nor the necessary farm implements.

As regards the latter, we shall describe them in greater detail, for they determine labour productivity. Grain harvests, the productivity of cattle, and so forth in large measure depend on the implements and their quality.

In feudal times farm implements in Russia, as in other countries, were extremely primitive. Suffice it to say that the means of production employed in the 19th century were the same as in the 9th century. If there was any improvement, it was insignificant.

The wooden plough with an iron ploughshare, for example, had remained practically unchanged since the days of Kiev Rus. The same applied to the wooden harrow, the sickle and the flail. Yet these were the chief implements for tilling, gathering and threshing harvests. The scythe, an improved version of the sickle, appeared in Russia in the 18th century during the reign of Peter I, and the iron plough in the period of feudalism. Towards the end of the feudal period, Russia imported an insignificant number of American and West-European mowers, threshers, winnowing and other farm tools. These few machines, owned only by the wealthiest landowners, naturally could not be regarded as an indicator of the general level of production technology.

The development of all branches of agricultural production directly depended on the quality of farming implements and the level of farming methods. Annual

grain harvests in Russia in the first half of the 19th century amounted to 150-200 million *chetverts** or 22,500,000-30,000,000 tons.

This meant that each *dessiatine*** of cultivated land yielded 4.63 *chetverts*, or 6.3 centners per hectare.

Bearing in mind that a *chetvert* of grain had to be sown on a *dessiatine*, the amount of harvested grain was approximately 3.5 times greater.

Prominent 19th-century economist L. V. Tengoborsky, comparing Russian harvests with those in the West, pointed out that Russia collected 4.63 *chetverts* per *dessiatine* while France, Prussia and Austria gathered 7.36, 5.74 and 6.6 *chetverts* respectively.

Now that we have studied the state and the growth of the feudal productive forces in agriculture, let us trace the formation and the development of the feudal relations of production.

In a feudal society, the relations of production were based on domination and subjection, and production itself was fully subjected to the interests of the exploiters, the feudal lords.

The forms of subjection of peasants continually changed in the course of centuries. The prevailing forms were either economic subjugation or non-economic, that is, overt coercion.

At the dawn of feudalism in Rus the *smerd*, the direct producer in agriculture, was not a serf personally dependent on the landowner. He was a freeman, and the feudal lord had no property rights over him. The not-too-numerous feudal class exploited the labour of servants, who lived on their masters' estates and were virtual slaves.

The demand for more labour increased with the growth of the feudal class and the expansion of *votchinas*.

As the economic positions of the feudal lords strengthened, the peasants gradually fell into various forms of economic dependence on them.

The economically dependent population of Kiev Rus included such categories of people as the *ryadovich*i and

* *Chetvert* is an ancient dry measure equalling about 8.7 poods of rye or 9.6 poods of wheat. A pood is 16.38 kilogrammes. Therefore a *chetvert* is approximately 150 kilogrammes.

** *Dessiatine* is an ancient Russian square measure equalling 1.09 hectares, or about 2.7 acres.

the *zakupi*. A *ryadovich* (from the word *ryad*, meaning contract) was a *smerd* made dependent on the feudal lord by a contract imposed on him when he was in straitened circumstances. At first, the *ryadovich* formally had the right to pay or serve out his bondage (the right of *vyryad*); actually, very few managed to do it.

A *zakup* (from the word *kup*, meaning loan) became a bondsman as a result of a debt contracted in distressing circumstances. He could regain his freedom only by repaying his debt fully and on time.

When Rus was split into hundreds of feudal principalities and lands, there was naturally no single state law governing relations between landowners and peasants. The local rulers and owners of hereditary estates were complete masters of the peasants.

But the more the Russian state became centralised, the stronger was the feudal landowners' demand for the legalisation of the peasants' dependence on them.

The first state document legally restricting the right of the peasants to leave their master's land was the *Sudebnik* (Book of Law) issued by Ivan III, Grand Duke of Moscow, in 1497. Thereafter, the peasants could leave their masters only during two weeks in autumn, after all field work had been completed.

In 1581 the central authorities introduced a measure known as "years of interdiction" during which peasants were forbidden to change masters even in the two weeks in autumn and even if they had paid their debts to them. It was a temporary measure originally intended to remain in force until repealed by a royal ukase. Between 1586 and 1592 all landowners and their peasants were listed in special registers which subsequently became the principal document determining the property rights of the landowners over their peasants.

In 1597 the government issued a special decree called "fixed years" authorising a search for absconding peasants. It said that the peasants who had fled from their masters during the five years prior to its publication were to be returned to their former places of residence. In 1607 the period of search for the runaways was extended to 15 years, and in 1649 the government passed a State Council Law abolishing the time limit for the return of absconding serfs.

These decrees completed the process of legally binding the peasants to the land of their masters.

But the peasants stubbornly resisted their enslavement all through the period of feudalism. There are records of the *smerds*' revolts against the princes and the boyars in Kiev Rus in 1024, 1068, 1071 and 1113.

The peasant movement gained momentum in the period of late feudalism (15th-17th centuries): the 1606-07 revolt led by Ivan Bolotnikov and the 1667-71 peasant war under the leadership of Stepan Razin. Tsarism retaliated with increased oppression of the serfs, repressions and executions. In the 18th century the peasants were deprived of the last vestiges of elementary human rights. Without the landowners' permission they could not go in search of outside employment, possess land, farm out, hire themselves out to other landowners, enter into financial commitments, and so forth. The law allowed landowners to banish peasants to Siberia, have them sentenced to hard labour or have them conscripted for long-term military service, while the peasants were strictly forbidden to lodge complaints against them.

The spread and consolidation of serfdom and the extremely hideous forms of exploitation precipitated the 1773-75 peasant war led by Yemelyan Pugachov. Its scale exceeded all previous peasant revolts. But all these revolutionary peasants' movements were suppressed. Feudalism was still at the height of its development and the autocracy was sufficiently powerful. The peasants' revolts were spontaneous, their leaders did not understand the class nature of the oppression the peasants were subjected to. The insurrectionists frequently fought for a "better tsar" and not for the abolition of feudal relations. Their goals were therefore vague, their actions inconsistent. The peasant masses did not know that they could achieve their goals only by completely abolishing feudal relations.

3. Development of Crafts and Manufactories and Appearance of the Capitalist Factory

Handicrafts were a small pre-capitalist industry which was based on manual labour and in which there was no division of labour. They appeared long before the feudal epoch and were already fairly widespread among the Slavs

in Kiev Rus. This is borne out by the archaeological finds at the sites of ancient towns. B. A. Rybakov, a prominent Soviet historian and archaeologist, wrote in this connection: "All these excavations show that almost every urban house was the home (or also the workshop) of a craftsman."* He studied the relics of material culture and arrived at the conclusion that ancient Rus knew 42 handicrafts, including the trades of blast-furnace makers, armourers, carpenters, locksmiths, masons, boot-makers, weavers and tailors.

The smelting and moulding of metal (iron, copper, silver and gold) were among the most important trades.

The people of ancient Rus knew how to smelt iron in blast-furnaces, and to weld, cast, forge and temper metal goods. They made more than 150 different kinds of implements of production, household utensils, weapons, etc., out of iron and steel.

Foreigners were amazed at the beautiful works of art made by Russian craftsmen who skilfully inlaid specks of metal or thin wire to form lovely patterns, made figured castings and enamel for partitions, and nielloed ornamented flat silver plates.

There was also a great diversity of building trades in Kiev Rus. Among the most important were carpenters (who built log houses, temples and other structures), shipbuilders, people who put up fortifications and walls, and masons.

There were many handicraftsmen who supplied the population with various consumer articles (especially in towns). They made linen and woollen fabrics with the help of spinning wheels and horizontal looms, and tanned hides.

The potter's wheel, which was widely used in the 9th and 10th centuries, considerably accelerated and improved the production and assortment of earthenware (crocery, ceramic moulds, etc.).

Another important development in Kiev Rus was the growth of specialisation. This resulted in the appearance of new crafts and the specialisation of separate regions in the production of certain kinds of wares.

The growing specialisation testified to the development of social division of labour.

In the phase of developed feudalism progress in the

* B. A. Rybakov, *Remeslo drevnei Rusi* (Crafts of Ancient Rus), 1948, p. 205.

handicrafts and the entire economy of ancient Rus was impeded mainly by the lengthy Mongol-Tatar yoke which lasted from 1237 to 1480.

Standing at a much lower level of socio-economic and cultural development, the Mongols and the Tatars had nothing to offer in exchange for what they took. Moreover, their invasion and domination inflicted untold suffering and incalculable loss of life. The economy of Rus was ravished, her cultural values destroyed and the growth of productive forces stunted.

It was only the Moscow Principality, ruled by the eminent statesman and military leader Grand Duke Dmitry Donskoi (1359-1389), that succeeded in uniting the people and dealt the Mongol-Tatar hordes the first telling blow in the battle of Kulikovo Field in 1380. A century later, in 1480, the yoke imposed by the invaders was shattered once and for all. After that the economy and culture of the Russian state began to develop much faster.

Industrially, Russia made considerable headway in the 16th and particularly the 17th century, when the social division of labour started expanding and production became ever more closely bound up with the market. There were already nearly 200 handicraft trades in Moscow, Novgorod and Kazan in the 16th century.

In some fields craftsmanship reached an extremely high level in those years, for example, in casting, whose principal products were cannon and church bells. In 1586 the famous Andrei Chokhov cast the tsar-cannon which is on exhibition in the Moscow Kremlin.

Many famous ancient structures have survived to this day. They include the walls, towers and cathedrals of the Moscow Kremlin, St. Basil's Cathedral in Red Square, and the Kolomenskoye Church.

The first printed Russian book appeared in the middle of the 16th century, and it showed the high level of craftsmanship and culture in the broadest sense of the word.

The 17th century was distinguished both by a general upsurge and improvement of the handicrafts, and by changes in their pattern. Industrial production became small commodity production. As a result of the growing social division of labour and expanding market ties, small producers, in addition to fulfilling individual orders, started to manufacture goods for the market.

The market, stimulating the growth of production, demanded the formation of more or less large producers' collectives and employment of hired labour, all of which created conditions for exploitation.

Small commodity production, therefore, engendered the capitalist mode of industrial production. It must be said, however, that it was some time before capitalist production became predominant.

For this, industry had to pass through three stages: small commodity production, capitalist manufactory and factory (large-scale machine industry).

The first relatively large industrial enterprises employing scores and even hundreds of workers appeared in Russia in the 17th century. At such enterprises the manufacturing process was naturally divided among the workers, and that helped them improve their skills and raise labour productivity.

Large enterprises could afford more modern and expensive equipment which, however, was still hand-driven.

Such enterprises were called manufactories. They appeared in Russia at the end of the 17th century, somewhat later than in the advanced European countries, and this was due to her general economic backwardness.

Towards the close of the 17th century Russia had about 30 manufactories, most of them of the ancestral estate type with serfs and not wage-labour making up the bulk of the producers. Such manufactories contributed very little to national development, for the produce was not marketed but consumed on the ancestral estate.

Manufactories of the capitalist type owned by merchants, newly rich handicraftsmen or foreign industrialists and traders first appeared in Russia in the 18th century, during the reign of Peter I.

At the same time iron and copper works, shipyards and other enterprises were springing up in the Urals, in the Northwest (Olonets territory), in the central and other parts of the country.

A noteworthy fact is that in the latter half of the 18th century some factories began turning out instruments, machine-tools and other means of production.

Metal production is a good gauge of the growth of Russia's industrial production. In 1725 her metallurgical works turned out 800,000 poods of pig iron. By 1750 the

figure had risen to 2 million poods and in 1770 it was 5 million poods. By way of comparison it might be said that industrially advanced England was then producing less than 2 million poods and had to import pig iron from Russia.

The rate at which manufactories were built in Russia between 1700 and 1770 is illustrated by the following figures: there were 30 of them in 1700, 191 in 1725, and 655 in 1769.

From the 1770s to the reform of 1861, the number of industrial enterprises increased and their socio-economic structure underwent pronounced changes.

The industrial revolution then taking place in England and other European countries hastened similar transformations in Russia. Machines were making ever greater inroads into various branches of industry and uprooting the outmoded traditions of production.

There appeared relatively big industrial enterprises equipped with machine tools where production was firmly based on the division of labour. These were no longer manufactories; they were capitalist factories (large-scale machine industry). The technical revolution entailed drastic changes in social relations. As capitalist production developed, some became the owners of the means of production and exploiters, while others were only wage-workers who were exploited with the help of these means of production.

Thus did the capitalist relations of production gradually come into existence.

The increase in the number of industrial enterprises in Russia in this period (excluding metallurgical works, wineries, breweries and flour mills) is shown in the following table.*

Year	Number of enterprises	Number of workers	Wage-workers (per cent)
1770	260	55,300	32
1804	2,400	95,200	47
1825	5,261	210,600	57
1860	15,388	565,100	87

* P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR* (History of the National Economy of the U.S.S.R.), Vol. 1, p. 531.

As might be seen from the above, the numerical growth of industrial enterprises was particularly rapid in the three and a half decades preceding the 1861 Reform.

4. Growth of Towns and Expansion of Trade Ties

In Rus, towns had appeared long before the feudal system. Some sprung up from large inhabited localities (ancient settlements surrounded by moats or earthen walls) of the patriarchal or clan type. Others rose when the country was split up into principalities, at points where troops assembled prior to military campaigns.

Still others sprouted on feudal ancestral estates following the increase in the number of free or dependent artisans there.

Not every big inhabited locality, however, was a town. This applied to many fortified villages where troops were billeted, and to feudal castles and fortresses that existed in Kiev Rus and somewhat later.

From the economic and socio-political angle, a town is an inhabited locality where the bulk of the population has in the main broken off with agriculture and is engaged in industrial production and trade.

The number of such towns in Kiev Rus was fairly large. According to Soviet Academician M. N. Tikhomirov, there were no fewer than 24 towns in the 9th and 10th centuries, and Russian chronicles say there were 64 towns in the 11th and 135 in the 12th centuries.

The most ancient and biggest were Kiev, Novgorod, Smolensk, Polotsk, Vitebsk, Pskov and Rostov.

Kiev and Novgorod were the most important in the economic, political and cultural respect. They were inhabited by thousands of artisans and traders and lay along the Russian and European trade route from the Baltic to the Black Sea (from Norway to Greece). Moreover, Kiev was the administrative, religious and cultural centre of the country.

At the time of developed feudalism Russian towns suffered badly at the hands of the Mongol-Tatar hordes. Ryazan, Moscow, Vladimir, Kiev and many other towns were almost completely razed. The invaders also plundered other towns and drove their artisans into captivity.

In spite of all this, life in towns did not die down. Beginning with the second half of the 13th century and especially in the 14th and 15th centuries town-building again began to gain in scope. According to some sources, there were about 300 towns in Russia in the 13th century. Among the new ones were Suzdal, Yaroslavl, Ryazan, Vladimir, Tver, Moscow and Nizhni-Novgorod.

In that period the leading role was played by Novgorod and Moscow. Kiev's importance was declining, and economic and political activity in the country was concentrated in the centre of Russia (Moscow) and in the North-west (Novgorod).

In the 15th-17th centuries the Moscow Principality assumed sole leadership. Moscow, founded in 1147, became the political as well as economic, religious and cultural centre of the Russian state.

In the number of handicraftsmen and traders, and the size of the population in general, Moscow was by far the biggest town in the land.

Yaroslavl, Nizhni-Novgorod, Kazan and Astrakhan rapidly grew into important economic centres when the Volga, on which they stood, became the chief trade route of Russia.

Early in the 18th century Peter I built a town on the coast of the Gulf of Finland wrested from the Swedes. St. Petersburg, as it was called, became the capital of Russia and was largely instrumental in further expanding the country's foreign trade and industry. In the 18th and the first half of the 19th century most of the new towns rose as a result of industrial construction in the Urals, the Northwest and the South.

The growth of commercial ties was directly bound with the development of town-building. The social division of labour was fairly widespread even in Kiev Rus. This is borne out by the fact that by those standards the towns had large populations engaged in non-agricultural trades. The most important feature of every more or less large town was its market-place (*torg* or *torzhishche*). Kiev, for example, had eight of them.

Handicraft wares were both sold in town markets and sent to the most remote parts of the country and even abroad.

Trade was especially brisk in Kiev and Novgorod, which received goods from all over the country and from abroad. As we have said above, it was through these towns that

the very important European trade route lay, linking the northern regions of Europe with Greece and other southern countries. It began at Lake Ladoga, passed along the Volkhov River, Lake Ilmen, the Lovat River, via portage to the upper reaches of the Dnieper and then down the Dnieper through Kiev to the Black Sea and Byzantium. There were two land routes leading to Western Europe. The first began in Kiev and passed through Cracow, Moravia, Bohemia and South Germany; the other began at Novgorod and passed through Pskov into the Baltic countries.

Speaking of the relatively far-flung commercial ties maintained by Kiev Rus, we obviously must not overestimate their significance. On the whole, both the feudal ancestral estate and the peasant household were natural economies which produced all the essentials themselves. It was considered an impermissible luxury to buy things on the market.

The Mongol-Tatar invasion for a time disrupted Russia's domestic and foreign ties, but they soon were re-established and then extended.

Many princes and other owners of ancestral estates encouraged trade because it brought them additional benefits, such as the possibility to sell surplus products, collect duties and other commercial taxes. In the period of developed feudalism towns continued to be centres of trade, but there also appeared inter-regional trading centres in the form of fairs. Bakers from Ryazan and the Moscow environs sold their produce at Novgorod markets, and salt from Galich and Novgorod was sent to Moscow, Astrakhan and many other towns.

Expanding trade ties led to the growth and final shaping of the merchant class, which brought to completion history's third major phase in the social division of labour.

The further growth of the country's productive forces, the development of the social division of labour and the attendant rise of a single centralised state powerfully stimulated trade in the later stage of feudalism and particularly in the period of the absolute monarchy in the 18th century.

The unification of Rus led to the abolition of internal customs barriers (1653) and improvement of transport facilities. The wide scope of trade in the 17th century testifies to the termination of a prolonged and extremely important

process in the country's economy, to the formation of a single all-Russian market.

The mercantile policy pursued by tsarism in the 18th century gave fresh impetus to the development of domestic and especially foreign trade. In the middle of the century Russia's total trade turnover amounted to approximately 18 million rubles, and in the first half of the 19th century it was already in the vicinity of 1,000 million rubles.

In 1831 there were 1,705 fairs in Russia, and 64 of them, including those in Nizhni-Novgorod, Kharkov, Rostov, Ilyino, Irbit and Kursk, had more than one million rubles worth of goods on sale each.

Foreign trade expanded rapidly in the century preceding the Reform. In the 1760s foreign trade turnover amounted to 21.3 million rubles in the 1790s to 109.6 million rubles, in the first decade of the 19th century to 127.9 million rubles, and in the five years preceding the Reform, that is, in 1856-60, to 431.5 million rubles.

The rapid growth of trade was striking proof of the fact that the feudal corvée system had become obsolete. Natural economy was supplanted by commodity production, and other specific features of the corvée-based economy were also obliterated. Over the centuries more and more direct producers who had previously been allotted the means of production, notably plots of land, were deprived of them. Russia was going through the same process as the Western countries. The only difference was that the dispossession of Russian peasants of their land proceeded at a somewhat slower rate.

The peasants remained personally dependent on the landowners even after the Reform of 1861. Nevertheless, serious changes did take place in their position. In the first half of the 19th century they began to leave en masse in search of work and this for a long time freed them of the control of the landowners. That and numerous peasant uprisings gradually turned personal dependence into a mere formality.

Production techniques radically improved too. Under the corvée system of economy the technical level was extremely low. The industrial revolution in the West, however, had an impact on Russia too and highly-efficient machines appeared in her industry and agriculture on the eve of the 1861 Reform.

Consequently, all aspects of the feudal corvée system radically changed. This signified the collapse of the entire economic and socio-political base of serfdom and necessitated its replacement by a new and more progressive system.

5. Abolition of Serfdom in Russia

Russia's economic growth brought her to the capitalist path of development. In the new conditions, the economy based on serf labour proved to be absolutely inefficient.

It was no longer possible to develop the productive forces on the basis of feudal and serf relations, for they were fettering the growth of social production. That was the principal cause of the downfall of serfdom.

The Crimean War of 1853-56, precipitated by tsarist Russia's attack on Turkey, likewise helped accelerate the replacement of serfdom with new relations based on the free labour of the producer. Tsarism launched this war in the hope that it would strengthen its weakening position in the world and seize Turkish territories in the lower reaches of the Danube and in Transcaucasia.

Turkey's allies, Britain and France, both much stronger than Russia militarily and industrially, entered the war following the aggravation of Anglo-Russian and Franco-Russian contradictions in the Middle East and the Balkans to check Russia's penetration into that part of the world.

Russia's defeat testified to her thorough economic, political and military backwardness due to her rotten serf-owning system.

Besides such objective factors as economic development and the Crimean War, there was another reason for the collapse of serfdom: the recurrent peasant risings, which became increasingly widespread with every passing decade.

All this convinced the landowners and the tsar of the necessity to abolish serfdom. Alexander II, Russia's biggest landowner, admitted that it was better to emancipate the peasants than to wait until they liberate themselves.

Below are the basic principles of the reform as set forth in the Manifesto of February 19, 1861, and in the Act on Peasants Emerging from Serf Dependence.

The most important act of the Reform was the granting of personal freedom to the peasants. Landowners could no

longer buy or sell peasants, make gifts of them, exchange or mortgage them. The peasants were allowed to own real estate, to seek outside employment, to engage in commerce and industry, and to conclude contracts with private persons or institutions. At the same time, there were many reservations. Among other things, it was stated that the rights of "free rural inhabitants" would not be granted the peasants right away, but in "due time", following the promulgation of *Ustavniye Gramoty* (Title Deeds), documents stipulating how much land was to be turned over to the peasants and how much they would have to pay landowners for it. In the meantime landowners were duty-bound to "maintain order" on their estates and authorised to pass judgment and administer punishment.

The location and size of the land allotted to peasants were to be determined within two years and recorded in *Ustavniye Gramoty*. It should be stressed that the tsar recognised the landowners' right to all land, both in their personal possession and that allotted to the peasants for permanent use. According to the Manifesto, the latter was not the personal property of the peasants but was granted them for "perpetual use" and the peasants had to pay redemption for it.

The size of allotments differed in various regions and was set down in special "local regulations".

The gubernias in the European part of the country were divided into non-black-earth, black-earth and steppe belts. The allotments were the smallest in the gubernias of the black-earth belt and the biggest in the steppe regions.

This gradation was decided upon landowners' demands and took the market value of the land into consideration.

As a result, the total area of allotted land was much smaller than that in peasant tenure before the Reform. The part of the holdings taken away from them, the so-called "cut-off" lands, amounted to 18 per cent of the total formerly held by the peasants.

In the black-earth gubernias, where land was of great value, the amount of land "cut off" came to 26.2 per cent, while in the non-black-earth areas it was to only 9.9 per cent. And in the Novgorod, St. Petersburg and other northern gubernias, the land in peasant tenure even increased somewhat.

To make it more convenient for landowners to receive redemption and to preserve their influence in the countryside, it was decided to grant land to village communes and not to individual peasants. The commune itself divided the land among the peasants.

Under the Reform, a peasant could receive land free of charge, but then only a quarter of the allotment. Lacking the necessary money, 648,000 peasants in Russia's 32 gubernias agreed to such conditions. Officially, these plots of land were called "grants"; the peasants called them "cat's plots".

Manor peasants, former serfs at factories on ancestral estates, workmen at state metallurgical works and workers assigned to private factories—all these categories of peasants either received no land at all, or were granted still smaller allotments. Historians estimate their number at about four million.

The agrarian reform further reduced the amount of land in peasant tenure. The immediate result was the redivision of the country's lands as follows: the 30,000 landowners retained 95 million dessiatines of the best lands, while 20 million "emancipated" peasants received 116 million dessiatines.

Having derived the maximum benefit from the allotment of land to the peasants, the landowners profited to no small degree by the system of redemption. The right to perpetrate additional plunder was sanctioned by the tsar in his Manifesto of February 19, 1861, which obliged the peasants "to perform definite duties for the landowners, as laid down in the ordinances". Making mockery of elementary justice, the tsar wrote: "The landowners' legally acquired rights cannot be taken away from them without adequate compensation or voluntary concessions, for that would be contrary to all justice. . . ." The "legality" of the seizure of land by the landowners and the establishment of serfdom has been described above; as for "justice", we shall see it from the way the landowners collected redemption payments from the peasants. After receiving their allotments, the peasants had to perform *corvée* service or pay quit rent for using it. Thus they virtually remained in bondage until the agreement on the amount to be paid for the land was fulfilled. Then the "temporarily bound" peasants became "peasant-owners".

"Temporarily bound" peasants on quit-rent estates continued to pay quit rent ranging from 8 to 12 rubles a year, depending on the size of the allotment. Those on corvée estates had to do corvée duties amounting to 40 days for men and 30 days for women who received the biggest allotments.

The landowners, however, were in no haste to collect redemption and the Reform did not oblige them to do so. The outcome of this was that in 1881, that is, twenty years after the Reform, 15 per cent of the peasants were still "temporarily bound".

The system of compensation for the allotted land was based on the capitalisation of the annual quit rent, which included landowners' profits from the non-agricultural occupations of peasants, and not on the sale price of land or the income derived from agriculture. The sum paid by the peasant for a holding thus greatly exceeded its market value.

This sum was calculated approximately as follows: the established annual quit rent was multiplied by 100 and divided by 6. In other words, it was capitalised on the basis of 6 per cent per annum.

For example, if the annual quit rent for a given allotment was set at 12 rubles, total compensation amounted to 200 rubles ($12 \times \frac{100}{6}$).

It was this ruse the landowners resorted to in carrying out their own proposals concerning the compensation the peasants had to pay not only for the land allotted them but for their personal freedom.

The landowners wanted to receive redemption payments for the land allotted to the peasants without delay. The government met their wish by paying them 75-80 per cent of the sum in cash and securities, regarding it as a loan to the peasants who had to repay it to the treasury within 49 years.

The allotment of land to communes instead of individual households facilitated the solution of this problem inasmuch as the government dealt only with the commune.

The landowners also benefited from the redemption operation because it extricated them from the difficulties arising from their indebtedness to the government. These debts were covered by the peasants whose redemption payments went to the government.

What the landowners' "fairness" cost the peasants may be gauged from the following figures: the market value of the land allotted to them amounted to 544 million rubles according to prices prevailing in 1854-58. The sum established by the Reform of 1861 was 867 million rubles. Actually the peasants had paid more than 2,000 million rubles for it by 1906.

Subsequently, the Reform was extended from landowners' peasants to several other categories of the dependent population both in Russia proper and in the outlying non-Russian regions.

Local peculiarities were naturally taken into account. But all legislative acts abolishing serfdom were based on the Reform Law of 1861.

An analysis of this law and the manner in which it was enforced shows that the Reform was plain robbery of the peasants attended by violence and humiliation.

Nevertheless, it exerted a progressive influence on Russia's development. It hastened the advent of industrial capitalism and created prerequisites for the accelerated growth of her economy.

The agrarian reform made it possible and necessary to carry out several other reforms of a bourgeois nature, including the reforms of rural local government (*Zemstvos*) and the judicial system in 1864, of urban local government in 1870 and the army (introduction of universal conscription) in 1874.

As a result of Russia's rapid industrial development, her working class, which later played the decisive role in abolishing capitalism and building a free life, grew more numerous and became more united and class-conscious.

It should be borne in mind, however, that the 1861 Reform was limited in nature. The serf-owners implemented it in such a way that the survivals of serfdom remained for many decades. They manifested themselves in the monarchist rule, in the existence of large feudal estates, in the employment of semi-feudal methods of exploitation and social oppression of the working people who were deprived of all rights and prevented from getting an education.

Consequently, in the next stage of development it was essential to remove the obstacles hampering the country's economic and socio-political progress.

Chapter II

RUSSIA'S ECONOMY IN THE EPOCH OF INDUSTRIAL CAPITALISM (1861-1900)

1. Development of Capitalist Relations

The feudal and serf system in Russia began to disintegrate in the 18th century. In the first half of the 19th century the contradictions between the developing productive forces and the obsolete relations of production reached the point where the abolition of serfdom had become an imperative necessity.

However, in the specific conditions obtaining at the time these contradictions were not resolved in a revolutionary way but by a reform carried out by the serf-owning landowners themselves and their government. They "emancipated" the peasants in such a way that survivals of the old feudal and serf system prevailed for decades after the Reform.

The abolition of serfdom might be regarded as a sort of a boundary separating two epochs in the economic development of Russia, the feudal and serf and the bourgeois epoch. The 1861 Reform swept away the main obstacles standing in the way of Russia's development along capitalist lines.

In the concrete historical conditions at that time, the victory of capitalism was a progressive event, for it brought personal freedom to the individual, forced the landowners to emerge from isolation, broadened people's outlook, shook them out of their inertia and perceptibly boosted production.

In the final count, this created the material prerequisites and subjective factors for the subsequent victory of socialism.

Lenin, then a young revolutionary, had to put in a great deal of effort to expose the false opinion prevailing at the time that there was no capitalism in Russia and never would be, that there were no prerequisites for the rise of the working class, and that the peasants alone could become the principal revolutionary force.

This theory was advanced by the Narodniks* who represented the petty-bourgeois trend in the Russian revolutionary movement.

The Narodniks believed that Russia's development depended on the handicraft artels and the village communes which they regarded as the embryo and the mainstay of socialism. In their opinion, these were "stable" forms of economic organisation that could stand up to large-scale capitalist production and prevent the proletarianisation of peasants and the impoverishment of all working people.

They did not see that Russia, like other advanced countries, already had all the necessary elements of capitalist production in the form of commodity production, the accumulation of capital, and the rise of the classes of industrial bourgeoisie and wage-workers. All this was evidenced by the industrial boom in Russia in the second half of the 19th century.

In the rate of growth of industrial production, especially in the last decades of the 19th century, Russia had surpassed such advanced countries as Britain or France. In this respect, an important role was played by the experience and the achievements of the old capitalist countries. Russia, like Germany, the U.S.A. and Japan, began to introduce the latest techniques and avoided the shortcomings and mistakes of the pioneers of the capitalist mode of production. The following figures show the rate of her industrial growth from 1861 to the close of the 19th century. In 1866 the European part of Russia had about 3,000 industrial enterprises employing over 16 workers each; by 1879 their number had increased to nearly 4,500, by 1890 to 6,000, and in 1894-95 there were about 6,400.

* Narodniks—supporters of Narodism, the petty-bourgeois trend in the Russian revolutionary movement in the sixties to the eighties of the last century.

The outlying regions were beginning to play an important part in promoting commodity production and expanding the capitalist market.

In the epoch of industrial capitalism Russia had a population of 126 million (according to the 1897 census), which made her third after China and India. Moreover, her non-Russian outskirts bordered directly on the territory of the parent state and their entire economic and socio-political activity was influenced by the Russian central gubernias. Consequently, the capitalist forms of economy spread fairly swiftly to the outlying regions of the country.

Describing the formation of a capitalist market in Russia, Lenin noted two important aspects in this process, namely, the development of capitalism in depth, that is, the growth of capitalist agriculture and capitalist industry in a given area, and the development of capitalism in extent, or the spread of capitalism's spheres of influence to new territories.

An important factor of the rise of the capitalist mode of production was accumulation of capital. There was intensive primitive accumulation of capital in Russia already in the 18th century. Serf relations prevailed in Russia longer than in other countries, the capitalist form of exploitation developed at a slower rate, the direct producers were not deprived so fully of the means of production, and their transformation into proletarians did not assume such a mass character. To some extent, these factors retarded the dynamics of capitalist accumulation.

Among the major sources of primitive accumulation of capital in Russia were: a) seizure of communal and state lands, that is, the same process as the "fencing off" of lands in Britain, but at a slower rate; b) plunder of the small nationalities incorporated in Russia; c) the granting by the tsar and the landowners' government of all sorts of privileges such as farming-out permits, monopoly of production, gifts of land, serfs and valuables, etc., to traders and industrialists; d) accumulation of money as a result of the development of domestic and foreign trade under the auspices of state bodies and preferences; e) institution of a state credit system which stimulated the concentration of capital in private hands; f) compensation operations in connection with the abolition of serfdom and the allotment

of land to the peasants, and g) influx of foreign private capital whose owners found investment in Russia's economy a highly lucrative business.

Joint-stock companies became widespread in Russia on the eve of the Reform of 1861, which made it possible for many persons who individually could not launch any more or less important economic undertakings—to build railways, organise shipping, establish insurance companies, etc.—to do so jointly.

In 1861 Russia had 78 joint-stock companies with a capital of 72 million rubles. By 1873 their number had increased to 373 and their capital to 116 million rubles; in the next seven years (1874-81) another 272 companies with a capital of 805.6 million rubles were established.

The direct outcome of the rapid concentration of capital was the emergence and formation of the two principal classes of bourgeois society, that of the industrial bourgeoisie and of wage-workers. The first big capitalists, not associated or hardly associated with the feudal ancestral estate economy (the Shchegolins, Miklayevs, Maslovs, Solodovnikovs among them), appeared during the reign of Peter I, in the first quarter of the 18th century. In the 18th century almost all of them merged with the privileged aristocratic class and became serf-owning landowners.

Beginning with the 19th century the ranks of the industrial bourgeoisie began to swell. Many capitalists, especially those who had worked their way up (rich peasants, forestaller-handicraftsmen, real estate speculators, etc.), completely broke off with agriculture to become purely capitalist-type employers. After the 1861 Reform the formation of the industrial bourgeoisie went on at an accelerated rate, and by the end of the 19th century this class had increased to approximately 1.5 million.

An important feature of the Russian bourgeoisie was that, unlike the Western bourgeoisie, it did not win high positions in society and politics even in the epoch of developed capitalism and had no major political organisations apart from some representative and public organisations of industrialists.

With the autocracy protecting its class interests and granting it all sorts of privileges, the Russian bourgeoisie (primarily the big capitalists) always sided with reactionary political groups and tsarism.

On the opposite pole of Russia's social organisation the proletariat was growing and gaining in strength. The ranks of the working class began to increase particularly fast after the Reform of 1861 which deprived about 4,000,000 peasants of their land.

Subsequently, fresh millions of ruined peasants began quitting agricultural production. Part of them became farm labourers, but the bulk went to form the reserve labour force of capitalist industry.

At the close of the 19th century there were about 10 million wage-workers in Russia, including some 1,500,000 employed at large industrial enterprises and on the railways, about 3,500,000 farm labourers, and 1,000,000 building workers.

The proletariat, however, did not grow only numerically. Along with its concentration, it became stronger and increasingly conscious of its strength. The extreme reactionary, anti-labour policy of the Russian bourgeoisie and the government forced it to organise itself.

A worker in England earned four times as much, and a worker in the U.S.A. earned five times as much as his counterpart in Russia. The working day lasted 12, 14 and even more hours. It was only at the close of the 19th century that the government conceded the workers' demands and passed a law limiting the working day at big enterprises to 11½ hours, and to 10 hours on the eve of holidays.

The capitalists squeezed the workers dry, taking every kopek in payment for rent, foodstuffs they bought at factory shops, fines, and so forth.

It was not surprising, therefore, that the revolutionary movement in Russia had by the close of the 19th century entered the decisive stage of its development.

Characterising the Russian revolutionary movement. Lenin divided it, in accordance with the social classes heading it, into three periods: 1) the period of the nobility, roughly from 1825 (beginning with the Decembrists*) to 1861; 2) the *raznochintsy*** or bourgeois-

* The Decembrists were Russian revolutionary noblemen who fought against serfdom and the autocracy. They revolted on December 14, 1825.

** The *raznochintsy* (literally, men of various social estates) were educated members of Russian society drawn from the small townsfolk, the clergy, the merchant classes and the peasantry, as distinct from those drawn from the nobility.

democratic period, approximately from 1861 to 1895, embracing revolutionaries of all classes who championed the interests of the oppressed peasantry; 3) the proletarian period which set in in 1895.*

Towards the close of the 19th century the revolutionary movement in Russia had attained such scope that there arose the immediate necessity for the establishment of a working-class political party.

2. Growth of Capitalist Relations in Agriculture

After the abolition of serfdom Russia's economy began to develop at an unprecedented rate. Agriculture was no exception, although it did lag behind industry and transport. Its development was badly hampered by the survivals of the serf system, and capitalist relations in agriculture formed much more slowly.

Lenin analysed the peculiarities attending the development of capitalism in agriculture in different countries and pointed out that there existed two objectively possible paths: the Prussian and the American.** In the first case, agriculture based on serf labour slowly develops into bourgeois agriculture (as, for instance, in Prussia following the 1850 Reform); in the second case, this process takes place in conditions when there are no landed estates or when they have been destroyed by revolution (the rise of farms in the U.S.A., particularly after the Civil War of 1861-65).

In both cases, relations based on serfdom are supplanted by capitalism. Yet the peasants are not indifferent to the manner in which capitalism asserts itself in agriculture. The Prussian path, as practice has shown, dooms them to decades of ruthless expropriation and oppression, and only a small proportion breaks through into the category of *Grossbauers* (big farmers).

Therefore, the peasants prefer the American path of capitalist development in agriculture.

Both types of evolution were manifest in the post-Reform period in Russia. On the whole, however, the

* V. I. Lenin, *Collected Works*, Vol. 20, p. 245.

** V. I. Lenin, *Collected Works*, Vol. 13, p. 239.

Prussian path predominated. This is understandable. Although the Reform of 1861 carried out by the serf-owners formally emancipated the peasants, it nevertheless made them almost fully dependent on the landowner economically.

The process of bourgeois reconstruction of the landowner and peasant economy began gathering momentum, especially in the southwestern, southern and some Volga-side gubernias that were more closely connected with the market.

As for the central gubernias, the bulk of the landowners ran their estates on the labour-service system. In other words, the peasants cultivated the estates with their own implements and received products, land or money for their work. This system was just another form of the corvée system which was undermined but not destroyed by the 1861 Reform.

The following table* shows the spread of the capitalist and labour-service systems in 43 gubernias in the European part of Russia at the close of the 1880s.

Gubernia groups according to system of economy predominant on landowners' estates	Number of gubernias		
	In black-earth belt	In non-black-earth belt	Total
I. Gubernias where the <i>capitalist</i> system predominates	9	10	19
II. Gubernias where a <i>mixed</i> system predominates	3	4	7
III. Gubernias where the <i>labour-service</i> system predominates	12	5	17
Total	24	19	43

The most important thing about the development of agriculture after the Reform of 1861 was that it began to acquire an increasingly commercial character. Many landed estates with relative ease adapted themselves to the new conditions. Wage-workers took the place of the serfs, primitive farm implements gave way to more complex and efficient machines, and advanced farming methods were introduced.

* V. I. Lenin, *Collected Works*, Vol. 3, p. 196.

The harvest yields on these estates were incomparably higher than on the old ancestral estates. Almost the entire agricultural output was marketed and the bulk of profits were invested in the further expansion of production.

The growth of kulak farms followed the same lines. Towards the end of the 19th century the landowners and the kulaks accounted for about three-quarters (71.6 per cent) of the marketable grain in the country.

Agriculture, as industry, became more concentrated. Land, its principal means of production, was amassed more and more by a relatively small number of enterprising landowners. At the close of the 19th century the landowners had from 60 to 70 million dessiatines of the most fertile land in their possession, and 60 per cent of it was in the hands of wealthy landowners who held an average of 30,000 dessiatines each (the royal family owned about 7 million dessiatines).

Almost all farming machines and the greater part of draught animals belonged to the landowners and the kulaks. Many landowners, however, were unable to meet the high expenses such reconstruction of agriculture entailed. Lacking the money to purchase expensive farming machines, confronted with difficulties in purchasing them and in mortgaging their estates, and being short of labour, they sold part of their land to wealthier landowners, and particularly to kulaks. The changes that took place in the ownership of landed estates after the Reform of 1861 are reflected in the following figures: in 1877 the nobles owned 77.8 million dessiatines, by 1887 this figure had dropped to 68.3 million and by 1905 to 52.5 million. In other words, in less than three decades landed proprietors had sold over 25 million dessiatines. They sold and bought estates through and received loans from the Peasant Land Bank, founded in 1883, and the Land Bank of the Nobility, which was set up in 1885. Between 1886 and 1912 they mortgaged 24.7 million dessiatines with the Land Bank of the Nobility for the sum of 1,146 million rubles.

Prices on land rose from 12.69 rubles per dessiatine (the average price in 45 gubernias on the eve of the Reform of 1861) to 66.92 rubles in the late 1890s.

The changes that took place in peasant economies in the last decades of the 19th century were just as significant.

Here the most striking feature of bourgeois reconstruction was the property and social differentiation of the peasants. Differentiation (the splitting up of the peasantry into class groups) had started long before the 1861 Reform and became particularly widespread among state-owned peasants who were more closely bound with the market and industry. After the Reform, this process assumed a new quality; it became public and social in substance.

The peasantry was not simply differentiating. It was gradually disintegrating and subsequently ceased to exist in its old form. Its place was taken by new social groups of the rural population, namely, the rural bourgeoisie, i.e., the kulaks, and the rural proletariat—the poor peasants and farm labourers.

All this is amply substantiated by data on the distribution of land, draught animals, agricultural implements, and so forth, among the different groups of the rural population.

Peasant property in land increased from year to year, notably as a result of kulak purchases of the landowners' land. In 1877 the peasants' private holdings totalled 5.8 million dessiatines and in the early years of this century they amounted to 13.2 million dessiatines.

The allotted holdings were distributed far from evenly too. Out of the 136.9 million dessiatines allotted to 12.3 million peasant households, approximately 50 per cent fell into the hands of 2.1 million of the more prosperous peasants.

The rented land was divided still less evenly.

A study of the social composition of leaseholders in different gubernias clearly shows that well-to-do peasants, who accounted for 20 per cent of all households, had from 50.8 to 83.7 per cent of leased land.

The distribution of draught animals presented a similar picture. In 1896-1900 in 48 gubernias 50 per cent of the poor peasants owned only 13.7 per cent of the peasants' horses and 20 per cent of the rich peasants owned 53.2 per cent of the total number of horses.

In the Russian village 3.2 million households (29.2 per cent of the total) were horseless, and another 3.4 million (30.3 per cent) had only one horse each.

All farm machinery in the peasants' possession was owned by the wealthier households. Neither the poor nor the middle peasants had enough money to buy farm

machines or the possibility of employing them efficiently on their land.

Another indication of the rapid disintegration of the peasantry was the increasing number of poor and even middle peasants leaving for towns and other parts of the country in search of additional incomes. This was evidenced by the growth in the number of passports issued to the peasants.* In 1861-70 fourteen passports were issued per every 1,000 of the population in the European part of Russia. In 1891-1900 this figure increased to 63 showing that the number of peasants migrating in search of subsidiary earnings had risen more than fourfold.

But even then the lot of the peasants hardly improved. A huge concealed army of unemployed had already come into being in the countryside. In 1900 there were some 23 million "redundants" in 50 gubernias of the European part of Russia.

The plight of the rural poor was further aggravated by the government's class policy in the sphere of taxation. Under the agricultural tax system the landed proprietor paid from two to 20 per cent of his income and the peasant over 50 per cent. Peasants' lands were taxed 10, 20 and even 40 times more heavily than the landowners' estates.

In 1875, for instance, the government collected a total of 208 million rubles in agricultural taxes, of which the landowners paid only 13 million; the rest came from the peasants. Besides, it squeezed still greater sums out of the peasants in the form of indirect levies which rose, between 1881 and 1897, from 3.27 rubles to 5.13 rubles per capita, that is, 57 per cent.

It was thus, at the expense of the suffering of millions of people, that capitalism paved a path for itself and strengthened its positions in Russia. It had no use for stagnation and backwardness and pressed for the introduction of new techniques and new relations in all branches of the economy.

In agriculture, the direct result of the capitalist development was a substantial increase in the productivity of labour and in the output of all types of agricultural produce.

* At that time, a peasant leaving in search of work had to apply for and receive a passport.

By the end of the 19th century the population of the country increased 120 per cent, the output of grain rose 170 per cent, and animal produce slightly more than 100 per cent. The increase in the output of industrial crops and potatoes was even greater. Considering that approximately three million of the able-bodied rural population went to cities as seasonal workers, the growth of labour productivity is all the more appreciable.

To a certain extent, agricultural progress was due to increasing implementation of farm machinery.

The table* below shows Russia's expenditures on the manufacture and imports of farm machinery (in rubles).

Year	Production of agricultural machinery in 50 gubernias of European Russia	Imports of agricultural machinery
1876	2,329,000	1,628,000
1879	3,830,000	4,000,000
1890	5,046,000	2,519,000
1894	9,445,000	5,194,000

Thus, in 18 years the amount increased almost fourfold.

The capitalist development of agriculture was also accompanied by growing consumption of artificial fertiliser. Here, too, we witness the simultaneous expansion of domestic production of fertiliser and its increasing imports. Between 1866 and 1900 Russia increased imports of fertiliser 225-fold (from 26,700 poods to 6,009,000 poods).

Other important indicators of progress in agriculture were the vast areas planted to industrial crops and potatoes and their steadily mounting share in gross agricultural output.

The annual production of flax, for example, rose from 12 million to 26 million poods from the end of the sixties to the mid-nineties of the 19th century. In this period the area planted to sugar beet increased 270 per cent, i.e., from 100,000 to 369,000 dessiatines. The output of tobacco and cotton also rose sharply.

Still the principal criterion of this progress was the rise in the harvests of grain and potatoes.

From the first half of the 1860s to the beginning of the

* V. I. Lenin, *Collected Works*, Vol. 3, p. 221.

20th century the area planted to these staples expanded from 72.2 million to 103.5 million dessiatines (that is, by 30 per cent), and their harvests rose from 152.8 million to 396.5 million *chetverts* (that is, by more than 160 per cent).

The average annual yield of grain crops prior to the Reform amounted to approximately 1,900 million poods and in the last five years of the century it came to 3,300 million poods.

This was due both to the expansion of crop areas and to higher yields.

Both factors made themselves felt with particular force in the southern and eastern outskirts of the European part of Russia. By the end of the 19th century these regions had become Russia's granary, leaving the black-earth zone of the country behind.

Agricultural production in Siberia was also growing rapidly. There, differentiation of the peasants proceeded more intensively, and the kulaks constituted a serious economic force.

Such is the general picture of the growth of productive forces in agriculture after the 1861 Reform.

The facts cited above make it plain that progress in this sphere was of an extremely contradictory nature. It was accompanied by mass ruination of the peasants, on the one hand, and the consolidation of the economic positions of the capitalist landowners and kulaks, on the other.

The contradictory nature of agricultural development manifested itself to a still greater extent during the world agrarian crisis of 1875-95. Growing exports of grain to Europe by Russia, the U.S.A. and some other countries, and the crisis of the capitalist industry that had begun in the European countries brought about a rapid decline in grain prices in the late 1870s both in the European and Russian markets.

The crisis caused the greatest damage to small producers, namely, the middle and poor peasants, who lost on the tumbling prices.

As a result of the growing polarisation of social groups in the village, the contradictions between them became increasingly acute. This is evidenced by numerous peasant revolts against the landed proprietors and the kulaks, who were forced ever more often to appeal to the government for protection by the army and the gendarmerie.

3. Completion of the Industrial Revolution and Rise of Capitalist Industry

In the last few decades of the 19th century Russia's industry was a medley of various modes of production ranging from domestic handicrafts to large-scale capitalist enterprises. During the Reform and in the first decade after it the leading role was still played by manufactories which predominated in the textile, woodworking, ore-dressing, metallurgical, animal produce processing and other major sectors of industry. But with the development of capitalism, the role and significance of various types of industrial production underwent drastic changes. Small-commodity production and the manufactories gave way to the more efficient capitalist factory.

Within two or three decades Russia attained the rates of industrial development some European countries had taken a century and more to achieve.

One of the most important criteria was increasing utilisation of steam engines in industry. By the 1890s factories, mines and metallurgical plants were using steam boilers and machines with a total capacity of 256,500 hp, whereas in the years 1875-78 the figure did not exceed 100,000 hp.

The expansion of industrial production in metallurgy was due to the replacement of the obsolete finery process with puddling. The country's growing requirements in steel led to the introduction of Bessemer converters and then open-hearth furnaces. Machines were almost completely predominant in cotton goods production and subsequently replaced manual labour in fulling mills, food factories and other enterprises.

But the most important feature of the industrial revolution was the development of the machine production of machines themselves, that is, the creation of the engineering industry.

An industrial revolution can be considered completed only with the organisation of the mass production of machines capable of replacing manual labour in all key branches of the economy.

Russia had been manufacturing certain types of machines before the Reform of 1861. Subsequently, this branch of industry began to grow at an unprecedented rate. Between 1867 and 1876 the output of the engineering industry rose

in value from 14 to 43.4 million rubles. In addition, a large number of machines for all branches of industry were purchased abroad. All these factors ensured complete victory for the industrial revolution. Technological progress, as we have already seen, was accompanied by radical changes in social relations and resulted in the ultimate consolidation of the capitalist mode of production.

Capitalist production based on the private ownership of the means of production and the employment of modern machines and wage-labour afforded incomparably greater scope for the development of productive forces and greatly boosted the productivity of labour.

The significance of this process is clearly seen when comparing the growth of industrial production in the Urals and South Russia, two of the country's major industrial regions.

In the Urals, the principal mining and metallurgical centre before the Reform, the system of labour service and assignment of peasants to factories remained even after the Reform. Characteristic of the Urals were low-level labour productivity, outdated equipment, low wages, widespread manual labour, primitive and wasteful exploitation of natural wealth, monopoly of production, restricted competition, exclusiveness, and isolation from the general development of trade and industry in the country. Pig iron was smelted in old blast-furnaces with wood as fuel and cold or slightly heated blowing. The output of metal grew very slowly. The new coal and iron centre in the south of Russia in many respects radically differed from the Urals. Here production was organised along purely capitalist lines and was not impeded by traditions, estate or national distinctions, or exclusiveness. Foreign capital with its advanced production techniques was freely applied in this region. As a result, in less than three decades after the Reform the south of Russia pushed the Urals to second place and became the country's leading metallurgical centre. The table* on page 47 illustrates this process.

Capitalism thus tore down all the obstacles standing in its way and objectively performed progressive role in furthering economic development. This role found its expression in the growth of the productive forces of social labour and its socialisation.

* V. I. Lenin, *Collected Works*, Vol. 3, p. 489.

Year	Output of pig iron (thousand poods)					
	Total for Russia	Per cent	in Urals	Per cent	in South	Per cent
1867	17,028	100	11,084	65.1	56	0.3
1877	24,579	100	16,157	65.7	1,596	6.5
1887	37,389	100	23,759	63.5	4,158	11.1
1897	114,782	100	41,180	35.8	46,349	40.4
1902	158,618	100	44,775	28.2	84,273	53.1

The general results of industrial development after the Reform might be gathered from the composite table* below showing the growth of output of some of the key commodities.

Year	Pig iron production	Coal extraction	Oil extraction	Consumption of cotton	Sugar output
	(million poods)				
1860	20.5	18.3	—	2.8	1.9**
1890	56.6	367.2	241	8.3	24.6
1900	179.1	986.3	632	16.0	48.5

The table shows that in 40 post-Reform years the output of these staple commodities rose from 10 to 20 times and that of coal increased more than fiftyfold.

According to some economists, Russian industrial production in the period of industrial capitalism grew almost eightfold. It is indeed a very high rate of growth. In these 40 years, according to the German Economic Institute, industrial production in Germany increased less than fivefold, in France 150 per cent and in Britain slightly over two times.

It is very important to note that the production of the means of production (Group A) was developing more rap-

* The table is compiled on the basis of figures drawn from P. A. Khromov's *Ekonomicheskoye razvitiye Rossii v XIX-XX vekah* (Economic Development of Russia, in the 19th-20th centuries), 1950, pp. 452-54, and P. I. Lyashchenko's *Istoriya narodnogo khozyaistva SSSR* (History of the National Economy of the U.S.S.R.), Vol. II, 1952, p. 147.

** In 1863.

idly, especially in the last decade of the 19th century, than the production of consumer goods (Group B).

Between 1887 and 1897 the annual rates of increase in production in various branches were as follows: 11.2 per cent in the mining and metallurgical industries, 10.7 per cent in the chemical industry, 9.3 per cent in the wood-working industry, 8.4 per cent in the metalworking industry, 8 per cent in the ceramics industry, 7.8 per cent in the textile industry, and 1.7 per cent in the food industry. This meant that Russia had firmly embarked upon the road of industrialisation.

Let us now take a brief look at the situation in individual industries during the period under review.

Russia's metallurgy, which had made substantial headway at the close of the 18th century, was lagging far behind advanced European countries and the U.S.A. at the time of the 1861 Reform. A new upsurge in this industry, but along capitalist lines this time, began in the 1870s. The development of metallurgy in the post-Reform years, as we have already said, was linked with the opening up of a new iron centre in the South. In 1872 the British capitalist Hughes built the first blast-furnace in the western part of the Donets Basin. Two years later the Russian capitalist Pastukhov built the Sulinsk Metallurgical Works. In the mid-1880s, following the completion of the Donbas-Krivoi Rog railway, another metallurgical region, with the centre at Yekaterinoslav (now Dniepropetrovsk), came into existence in the Dnieper area. The south of Russia became an advanced industrial region. Metal production was also expanding in the Central region and in Poland.

Here particular attention was paid to smelting steel, which was consumed in increasing quantities by the growing engineering industry.

The fuel industry, that is, extraction of coal and oil, appeared in effect only after the Reform and made especially rapid headway in the 1880s and 1890s. Coal extraction increased threefold in the last decade of the 19th century. The Donets Basin, which accounted for more than two-thirds of the country's coal output, became the principal coal region. In 1900 it yielded 671.7 million poods. The Dombrowski Basin in Poland was second with nearly 252 million poods. The total output of the Moscow, Urals, Siberian, Caucasian and Turkmen basins amounted to several

scores of millions of poods. There was one negative factor in the development of the coal industry: the substantial increase in coal production was due considerably more to the growth in the number of workers than to the rise of labour productivity.

Oil output jumped sharply in the 1880s and 1890s. In 1870 Russia produced less than 2 million poods, whereas in 1900 her output reached 632 million poods, of which over 95 per cent came from the Baku oilfields. Oil extraction began to grow particularly rapidly as a result of outstanding Russian discoveries and inventions, which enlarged the application of oil products: fuel, lubricants, etc. Towards the close of the 19th century Russia became the world's biggest oil producer, temporarily displacing the U.S.A.

The construction of railways, a matter of immense importance for such a vast country as Russia, was proceeding just as swiftly, stimulating the production of metal, rails, machines and fuel, and thus boosting the development of heavy industry.

The railways considerably livened up social and economic activity in the areas through which they passed. Towards the end of the 19th century key industrial regions, large cities, ports and agricultural areas were all linked into a single economic organism.

From 1868 to 1871 Russia built an average of 2,150 kilometres of railways a year, while in the last five years of the century the figure rose to 3,235 kilometres. At the close of the century she was leading the world in the rate of railway construction. Between 1890 and 1900 the total length of rail lines in Russia increased 73.3 per cent, whereas the corresponding figures for Germany, France, the U.S.A., and Great Britain and Ireland were 20, 16, 15.9 and 8.9 per cent respectively.

In length of railways Russia advanced to second place in the world from the fifth she occupied in 1890.

She nevertheless lagged behind the advanced capitalist countries in the relative density of the railway network. In 1895 she had 1.5 kilometres of railways per 1,000 square kilometres of territory, compared to 106 kilometres in Britain and 80 kilometres in Germany.

The textile and food industries also retained their importance. But although they made considerable progress

in the four decades following the Reform, their rate of growth was much slower than that in heavy industry.

In value, the output of cotton-spinning mills between 1870 and 1897 increased from 48.4 to 134.9 million rubles. In the same period, the production of weaving mills and printing and finishing factories rose from 48 to 237.5 million rubles and from 30.7 to 105.5 million rubles respectively.

It is noteworthy that large-scale machine industry was intensively ousting small production based on manual labour. In 1860 Russia had 11,000 mechanical looms and in 1899 their number was in the vicinity of 146,000.

The development of the cotton industry, the leading branch of textile production, was prompted by two factors: first, by the end of the 19th century Russia had already built her own cotton base and in large measure ceased to be dependent on cotton imports; secondly, the government had increased its protection policy of the cotton industry (tariff of 1891).

Of the food industries, the sugar industry had the highest rate of development. This was due to the fact that new techniques were extensively introduced into it and wage-labour was widely employed already before the Reform.

Small flour, oil and husking mills were put out of business by large capitalist enterprises.

In general, there was a high degree of concentration of production in Russian industry. At the close of the 19th century about 50 per cent of the pig iron produced in the South (or 25 per cent of the country's total) was accounted for by five blast-furnace works. In Baku five oil companies produced more than 44 per cent of all the oil. A score of pits in the Donets Basin yielded more than two-thirds (67 per cent) of the country's coal. In the sugar industry the leading role was played by eight sugar manufacturers whose refineries accounted for 38 per cent of the total sugar output.

Joint-stock companies became the most widespread form of advanced organisation of labour in the post-Reform period. These companies, which first appeared before the Reform, began to spread by leaps and bounds during the subsequent stages of industrial development. Towards the end of the first post-Reform decade, Russia was gripped by a veritable company-founding fever, with the result that

227 joint-stock enterprises with aggregate capital of 347 million rubles were set up between 1871 and 1873.

Establishment of joint-stock companies continued at an even more feverish rate during the industrial boom of the 1890s. No fewer than 527 joint-stock companies with fixed assets exceeding 600 million rubles were founded in 1899 and 1900 alone.

The high degree of concentration of production prompted big industrial, transport and banking companies to create monopoly associations capable of controlling production in the greater part of branches of the economy. Such, in effect, were the cartel agreements between the owners of rail mills and bridge-building enterprises (concluded in the early 1880s); the syndicate of sugar manufacturers which had by the 1890s taken control of almost 90 per cent of all enterprises in this industry; the syndicate of kerosene manufacturers which ran virtually the entire oil production in Baku and other regions. True, right up to the close of the 19th century these monopolies could not boast of their stability. Many of them fell apart only to reappear with a different combination of partners. It was at the very end of the 19th and the beginning of the 20th century, as we shall see further on, that monopoly associations assumed almost complete control over production in all key industries.

Another important feature of post-Reform industrial development in Russia was the steady penetration of foreign capital into all branches of production. The following figures show the influx of foreign capital in the period under review: in 1860 it totalled 9.7 million rubles, in 1870—26.5 million, in 1880—97.7 million, in 1890—214.7 million and in 1900—911 million rubles.

Foreign joint-stock capital in Russia in the last years of the 19th century was made up as follows: Belgian (296.5 million rubles), French (226.1 million), German (219.3 million), British (136.8 million), and U.S. (8 million).

A comparison of total foreign investments in Russian industry with the national investments shows that their share was insignificant. This convincingly disproves the claims that economically Russian industry was dominated by foreign capital. There is no denying the fact, however, that it played an important part in the country's economic activity, and especially in promoting the growth of the extractive and metallurgical industries in the south of the country.

A general survey of industrial development in Russia after the 1861 Reform reveals the rapid growth of all key branches of production. Towards the close of the 19th century Russia started catching up with the U.S.A. and the advanced European capitalist countries in volume of production.

It would be wrong, of course, to overestimate her achievements in that period. Let us take the iron and steel industry. In the last decade of the 19th century the world output of pig iron increased by 45.2 per cent, while in Russia it rose 212.6 per cent. Nevertheless, in absolute volume Germany, Britain and the U.S.A. smelted 150, 200, and 400 per cent respectively more pig iron than Russia. And since Russia had a much larger population than any of these countries, her lag in pig iron production was greater still if calculated per capita. The situation in other key industries was almost identical.

Having firmly entered upon the road of capitalism, Russia's industry acquired all its typical aspects, including cyclical development. Booms gave way to devastating crises which threw production several years back. There was a certain decline in production in the wool, flax, coal, pig iron and some other industries as far back as 1847.

The world crisis of 1857 had affected some industries in Russia, too.

After the 1861 Reform, the crises became more severe. A serious blow was dealt to industrial production by the crises of 1873-75 and 1882-83. Certain reduction in production was also observed in 1890.

In the 1890s, as we have said earlier, Russian industry expanded extremely rapidly. At the turn of this century, however, the country was struck by the severest crisis it had ever experienced.

Such in general are the salient features of industrial development in Russia in the post-Reform period.

4. Growth of Commodity Circulation. Credit and the State Finance System

One of the key problems facing the capitalist economy in Russia in the post-Reform years was to establish a home market for manufactures. In Russian conditions "home market" embraced the following basic factors: ex-

pansion of commodity circulation, growth of towns and commercial and industrial population, internal colonisation, the differentiation of the peasantry, increasing employment of hired labour, and formation of a domestic manpower resources.

These factors were all the consequence of the steadily expanding social division of labour. The abolition of serfdom accelerated this process. Consequently, the home market expanded at an ever increasing rate, too.

A distinctive feature of the growth of commodity circulation was the increasing demand for consumer goods, on the one hand, and for the means of production, on the other. The demand for both farm produce and manufactures became all the greater with the growth of the non-agricultural population and that part of the rural population which was ousted from small-scale commodity production and virtually turned into rural proletariat.

As for the sharp increase in demand for metal, oil, fuel, machines and other heavy industry products, it was due in the first place to the construction of railways. Some economists have estimated that between 40 and 65 million poods of pig iron, that is, about 50 per cent of gross output, were annually used in railway construction at the end of the 19th century. In the latter half of the 1890s the Donets coalfields were selling about a third of their output to the railways. Trade turnover at the close of the century added up to approximately 25,000 million rubles a year. Important changes took place in domestic trade. Commercial firms and department stores handling millions of rubles worth of business opened up in the cities. Large-scale transactions were conducted at the stock exchanges (there were 24 at the close of the 19th century) and goods were bought and sold in accordance with the existing standards and specimens.

Nevertheless, rural and urban fairs continued to play the leading role in commodity circulation. Their viability was due to lack of decent transport facilities. Besides, fairs did not require the development of credit or large-scale accumulation of capital.

True, by the close of the 19th century Russia had already made definite headway in the development of transport. In addition to expanding the railway network, she increased the number of steamships from 646 in 1863 to 2,539 in

1895, which naturally made it possible to freight more goods by water. Still, these improvements in Russia's transport facilities were far from sufficient.

The development of foreign trade is an important indication of the growth of commodity circulation. The total value of imports and exports rose from 347 million rubles in 1861 to 1,322.4 million rubles in 1901, that is, 280 per cent. But a comparison of Russia's foreign trade figures at the beginning and at the end of the period under review with those of other countries makes it clear that the latter's progress in this field was more substantial. As a result, Russia's share in world trade actually dropped from 3.6 per cent in 1850 to 3.4 per cent in 1899.

Russia's principal trading partner between 1896 and 1898 was Germany; Britain was second, the Netherlands third, France fourth, followed by the U.S.A., China and other countries. It may be recalled that in the first half of the 19th century it was Britain, and not Germany, which played the leading role in Russia's foreign trade.

Towards the close of the century Britain cut her purchases of Russian wheat and timber and sharply increased their imports from the U.S.A., Canada and other countries.

Russia chiefly exported farm produce. In 1891-95 wheat accounted for about 50 per cent of her exports, then followed flax, sugar, eggs, hemp, etc.

Fabrics, oil products, metals, leather and other industrial goods were shipped chiefly to China, Persia and other Eastern countries.

Considerable changes occurred in the pattern of Russia's imports. Because of the rapid growth of her industry she began to import more machines and equipment towards the close of the 19th century. Cotton, previously the principal item of import, dropped to second place and metal to third. Russia increased her imports of coal (especially for the industrial enterprises of St. Petersburg), and continued to buy tea, wool, fruits, wine and other articles.

The government customs policy also underwent certain changes following the Reform. Before the Reform and for two decades after it, Russia's foreign trade was regulated by the Free-Trade* tariffs of 1857 and 1868. At the

* Free Trade, a policy of the industrial bourgeoisie who demanded unrestricted trade, abolition or lowering of customs duties, and export prizes.

time her industry was unable to meet all that was required of it for the expanding construction of industrial enterprises and railways. It was only at the close of the 1870s that changes were introduced into her customs policy with a view to levying heavier duties on imports. As before, this policy was intended to help Russia build up her own industry and increase budget revenues.

The concluding stage of this policy was the introduction of the protective tariff of 1891 which increased the customs duties to 33 per cent of the cost of commodities (17.6 per cent in 1857-68).

Capitalist development in Russia called for a radical reorganisation of the obsolescent financial system and its adaptation to new conditions.

In 1862, soon after the Reform, an attempt was made to stabilise the circulation of money. The government allowed the exchange of banknotes for gold and silver coins. New rules regulating the drawing up and discussion of the budget were approved. The system of cash-accounting and state control was modified. Instead of the farming system of taxation (on liquor), excise was levied not only on liquor but on tobacco and sugar, and subsequently on some other commodities.

Nevertheless, the currency reform of 1862 left many major problems unsolved. The unfavourable economic and political situation prevented the exchange of banknotes.

The government tax policy continued to reflect the interests of the nobility. The taxpayers were the working people. The poll tax, abolished in 1887, was replaced with a land tax, which in effect did not lighten the tax burden imposed upon the peasants.

To mask the anti-popular nature of the tax system, the government systematically raised indirect taxes by hoisting the prices of basic consumer goods. In the last forty years of the 19th century direct taxes were increased by 100 per cent and indirect taxes by 350 per cent.

The state budget was just as anti-popular as the tax system. For example, budget revenues in 1861 amounted to 407.6 million rubles, of which over 190 million rubles (or almost half) were derived from tallage, quit rent and excise on liquor, salt, tobacco and sugar. In 1899 budget revenues added up to 1,673,313,000 rubles, of which 716,246,000 rubles were derived from tallage and levies,

excise on liquor and other goods, and also from land redemption payments.

Budget allocations went chiefly for military needs, to maintain the bureaucratic government apparatus, to cover Court expenses and to repay state debts.

In 1861 the War Ministry got almost 116 million rubles, while the Ministry of Public Education received only 3,617,000 rubles.

The budget expenditures in 1899 amounted to nearly 1,500 million rubles. Of this, 500 million rubles went to the Ministry of War and Navy and to the Ministry for Internal Affairs, whereas only 29,127,000 rubles were allocated to the Ministry of Public Education.

Part of the budget funds, especially in the last decade of the 19th century, was apportioned for the construction of government railways and industrial enterprises.

Most of it, however, found its way into the pockets of businessmen closely associated with government circles. The system of guarantees provided for by government contracts brought building companies very large profits.

Russia's state budget suffered from a chronic deficit right up to the end of the 1880s. At the beginning of the 1890s, by dint of enormous effort, she succeeded in balancing the budget and building up a reserve of about 900 million rubles.

But in addition to the ordinary budget there was an extraordinary budget (military expenditures, expenses on the construction of railways and industrial enterprises). These expenditures were covered by loans and so, generally speaking, the budget remained unbalanced to the very end of the century.

Despite these adverse conditions the government found it expedient to initiate a currency reform, establishing the system of gold monometalism. This reform was carried out between 1895 and 1897. A paper ruble was made equal to 66 $\frac{2}{3}$ kopeks in gold, which corresponded to the actual rate of exchange at the time. The gold content of the ruble was decreased from 26.1 *dolyas** to 17,424 *dolyas*. The reform was thus a veiled form of devaluation.

In 1897 the State Bank was authorised to issue bank-notes in amounts necessary to ensure normal money turn-

* *Dolya*, an old Russian measure of weight equal to 44.4 milligrammes.

over. The reform had a great economic effect. It stimulated the development of the economy as a whole, strengthened capitalist relations in the country, livened up credit activity, led to the influx of foreign capital, etc.

Important measures were taken to expand the credit system and to improve and adapt it to capitalist conditions.

The State Bank's new statute bound it "to facilitate the circulation of money and to promote the growth of Russia's trade, industry and agriculture by granting short-term credits".

The Bank had nine offices and 104 branches in different parts of the country. The Land Bank of the Nobility and the Peasant Land Bank also had several dozen branches.

Forty-two joint-stock commercial banks, 10 joint-stock mortgage banks, 116 mutual credit societies, 241 city banks and a large number of savings banks were founded at the close of the 19th century.

The expansion of credit operations was mirrored by the activity of the State Bank. The value of the letters of credit in its possession and the special accounts opened on credit instruments increased eightfold between 1861 and 1900, and loans and special accounts on interest-bearing securities sevenfold. The amount of gold in its possession at home and abroad jumped from 82 million to 843 million rubles.*

An efficient and ramified system of credit establishments capable of promoting capitalist production was thus taking root in Russia.

* See P. A. Khromov, *Ekonomicheskoye razvitiye Rossii...* (Economic Development of Russia...), 1950, p. 530.

Chapter III

RUSSIA'S ECONOMY IN THE EPOCH OF IMPERIALISM

1. Characteristic Features of Russian Imperialism

Having reached a certain stage in its development, capitalism ceased to play its historically progressive role, that of stimulating the growth of the productive forces of social labour and promoting its socialisation. Capitalism entered the stage of imperialism, the highest stage of its development, and here the contradictions inherent in capitalism have reached their peak. In the epoch of imperialism, alongside the continued development of productive forces, the decay and parasitism of capitalism become ever more manifest.

In the economic respect, the main outcome of the development of capitalism into its highest stage has been the rise of monopolies which ousted free capitalist competition. This does not mean, however, that competition has disappeared under imperialism. It merely manifests itself in other but no less vicious forms.

The monopolies' domination in all spheres of economic and political activity has become the essence of imperialism. "If it were necessary to give the briefest possible definition of imperialism," Lenin wrote, "we should have to say that imperialism is the monopoly stage of capitalism."*

A fuller definition of imperialism includes the following five features: "1) the concentration of production and capital...; 2) the merging of bank capital with industrial

* V. I. Lenin, *Collected Works*, Vol. 22, p. 266.

capital, and the creation, on the basis of this, of 'finance capital', of a financial oligarchy; 3) the export of capital as distinguished from the export of commodities acquires exceptional importance; 4) the formation of international monopolist capitalist associations which share the world among themselves and, 5) the territorial division of the whole world among the biggest capitalist powers is completed."*

A study of the development of capitalism in the leading countries shows that they all entered the imperialist stage at the close of the 19th and the beginning of the 20th century. This fully applies to Russia, too.

It goes without saying that the development of capitalism had its own specific features in each capitalist state. That is why the imperialism of one country is dissimilar to that of another. Every one of its features is apt to manifest itself differently in different countries.

In Britain, for instance, its most prominent feature was colonialism, in France—usury, in Germany—the bourgeois-Junker system of domination, and so forth.

As regards Russian imperialism, it might be characterised as a military-feudal one. Here, the more advanced industrial and finance capital was closely interlinked with the survivals of medieval despotism, the domination of the serf-owning class of landed proprietors, and a backward agrarian economy.

Russian absolutism bore a markedly military-aggressive character, and the entire system of landowner and bourgeois domination was bolstered by the army and the police.

Consequently, Russian imperialism can be identified with tsarism, the tsarism of the 20th century and not of the 18th and 19th centuries. The central political authority had to take into account the interests of the serf-owning class and to meet the demands of the powerful industrial, commercial and financial bourgeoisie.

Each of the five features of imperialism manifested itself in Russia strictly in conformity with these specific conditions.

Concentration of production in Russia was at a very high level. No other country had such a high percentage of workers employed at large industrial enterprises.

* V. I. Lenin, *Collected Works*, Vol. 22, p. 266.

Enterprises with over 500 employees accounted for 54 per cent of the total number of workers, whereas the corresponding figure for the U.S.A. was 33 per cent. Despite the high level of concentration (as regards labour) the technical standard of production was extremely low.

The high degree of concentration of production led to the rapid growth of powerful monopolies. The overwhelming majority had important peculiarities. First, their range of operation was very wide. In some branches they controlled from 75 to 90 and even 100 per cent of production; secondly, they had not yet attained their highest forms of organisation (trusts, corporations), and remained associations of the syndicate type; thirdly, they were largely influenced by foreign capital, and, fourthly, they maintained close ties with numerous government enterprises (factories, railways, etc.) and in great measure depended on state orders.

Finance capital came into being as a result of the concentration of banks and their increasing influence over industry.

The banks did not confine their operations to speculating in industrial stocks but played an important part in controlling the old and organising new monopolies.

The financial oligarchy in Russia was growing rapidly, and a handful of powerful financial bosses closely bound with the government seized control of the key branches of production.

Russian capital was not exported in any large measure because, on the whole, Russia's economy was weak and there were many areas in the country where capital could be profitably applied.

Capital was exported actively, though in small amounts, only to the less developed neighbouring countries (Persia, Afghanistan, Northeast China, Mongolia and Turkey) which were Russia's "spheres of influence" at the time.

Her imports of capital from Germany, France, England and other advanced countries were considerably larger.

Russian capital also took part in the division of the world among international monopoly associations, although on a relatively small scale. The reason was the country's general socio-economic backwardness and its unequal position among the developed capitalist countries.

Russian industrial magnates and financiers closely col-

laborated with the German, French and U.S. monopolists in the General Electric Company of Europe, in the German-Rumanian-Russian Oil Corporation, in tobacco, manganese and other corporations.

Russia also participated in the territorial division of the world and in its subsequent redivision among the biggest imperialist powers. Together with her West-European allies she interfered in the affairs of Turkey, Persia, and the Balkan and other countries. Tsarism pursued an imperialist policy in the Russo-Japanese War of 1904-05 and in the First World War.

The parasitism and decay of capitalism in Russia likewise had their specific features. The ruling bourgeoisie and the nobility had amassed enormous wealth by mercilessly exploiting the proletariat and the bulk of the peasantry and by plundering the colonial peoples. A fairly large number of people were living in luxury without being of any use to society.

Bent on pocketing large profits, the monopolists unreservedly inflated prices by systematically curtailing the production of iron, coal, oil and other key commodities. Capitalism's growing parasitism and decay manifested themselves in the deliberate blocking of technical progress and unscrupulous exploitation of the country's natural wealth. Medieval serf relations continued to dominate in agriculture, farm machines were obsolete, the peasants were ignorant and deprived of all rights.

The baneful influence of these features on the country was multiplied by foreign capital which had gained a tenacious hold on a number of key industries.

Deriving immense profits in Russia, foreign monopoly capital laid hands on the more accessible regions that could be easily developed, and introduced the cheapest forms and methods of organisation of production.

In the oil industry, for example, the bulk of foreign capital was invested in the Baku fields, where oil was scooped by hand into pails and then poured into cisterns. Other extremely rich deposits, including the prospected reserves on the left bank of the Volga, were not worked because to develop them everything had to be started from scratch.

The history of Russia's economic and social development in the epoch of imperialism laid bare all the revolting features of this system.

Another distinctive feature of the early years of the 20th century, in addition to the economic crisis, was the unprecedented crisis of Russian tsarism's political system.

The Russo-Japanese War of 1904-05 strikingly exposed the rottenness of the Russian autocratic system, the economic backwardness of the country, and the incompetence and venality of the Russian Supreme Command. The war was unleashed by Japan when her destroyers unexpectedly attacked a Russian naval squadron in Port-Arthur in the night of February 8, 1904.

Japan was supported by the British and U.S. imperialists. The Russian Government, however, wanted this war and had prepared for it. Two imperialist powers, both equally eager to establish hegemony in the Far East, came to grips on Chinese territory. Russia's ruling circles hoped that a "little war" would help them stave off the looming revolution, win new colonies and markets and enhance the prestige of the autocracy.

But the opposite happened. The war ended in ignominious defeat despite the heroism of Russian troops.

It inflicted a heavy blow on the country's economy, disorganised transport and depleted the treasury. War expenditure topped 2,500 million rubles and the losses sustained by the economy amounted to 4,000 or 5,000 million rubles. According to official (patently understated) figures, Russia's losses exceeded 120,000.

The defeat sustained by tsarism was by no means a defeat for the people. On the contrary, it created conditions stimulating the revolutionary movement and ensuring the victory of the people's revolution.

The revolutionary movement which unfolded at the close of the 19th century rapidly gained momentum. The sharp deterioration of living standards in the years of the crisis led to mass protest demonstrations in 1900.

It was in the conditions of the approaching revolution that a party of the working class was formed. The vast preparatory job its founder Lenin and his associates had done through the newspaper *Iskra* (The Spark) resulted in the convocation of the Second Congress of the Russian Social-Democratic Labour Party (R.S.D.L.P.) held abroad in July and August 1903 (first in Brussels and then in London). It put the final touches to the formation of the working-class party.

After that the revolutionary struggle of the Russian proletariat and the peasantry it was allied with was guided by the R.S.D.L.P. and its Central Committee.

The strikes and demonstrations in the early years of the 20th century were a prelude to the Revolution of 1905-07 whose principal goals were: overthrow of the autocratic regime and establishment of a democratic republic, abolition of landed estates, establishment of civic rights, self-determination for the oppressed nations and introduction of an eight-hour working day. Its demands were typical of a bourgeois revolution. Initially, its programme did not call for the abolition of the capitalist system.

Nevertheless, the Russian revolution had a number of features which made it different from the bourgeois revolutions in Western Europe. It was a people's revolution headed by the most revolutionary class, the proletariat, and not by the bourgeoisie. The proletariat's ally was the oppressed peasantry. As for the bourgeoisie, it was a counter-revolutionary force and an ally of tsarism.

Consequently, it was not a purely bourgeois revolution, but a revolution of a new, bourgeois-democratic type which at a certain stage could turn into a proletarian, socialist revolution.

This revolution was defeated because the proletariat and the peasantry were not yet firmly allied, their struggle was not militant enough, and there was no united centre to guide the armed uprising. The R.S.D.L.P., destined to lead the revolution, was divided as a result of the Mensheviks' splitting activities.

Nonetheless, the revolution dealt tsarism a telling blow and ushered in a new epoch—one of serious political clashes in different parts of the world.

Russia's social and economic life experienced further upheavals caused by the First World War, which had been unleashed by the imperialists.

The Russian Government and the governments of other imperialist powers had been preparing for this war for many years. Russia had contradictions with Germany concerning the division of the spheres of influence in Turkey, Iran and other Middle East countries. The Russian bourgeoisie was apprehensive of the increasing competition of German goods.

Besides nursing the hope that a war would settle territorial issues, the Russian bourgeoisie wanted it to enrich itself on military orders and supplies.

Finally, it stepped up war preparations in an effort to crush the rising revolutionary movement.

Consequently, the 1914 war was imperialist, predatory and unjust. All it brought the people was more privation, grief and suffering.

No fewer than 28 countries (including the world's biggest) with an aggregate population of more than 1,500 million were gradually drawn into hostilities. About 74 million men were mobilised. The war took millions of lives, destroyed huge material values, and greatly retarded the economic development of many countries.

It had the most terrible consequences for Russia which was not prepared for such large-scale military operations and was short of rifles, cartridges and shells.

Transport was completely disorganised, and there was a scarcity of metal and coal as a result of the policy of the monopolies. Food resources were absolutely inadequate, the financial system split at the seams, and mobilisation was conducted slowly and inefficiently.

The result was that Russia sustained unwarrantedly excessive losses, the contradictions of the capitalist system deepened, and the revolutionary situation came to a head.

2. Concentration of Production. Monopolies and Their Place in Russia's Economy

There was an extremely severe economic crisis in Russia in 1900-03. Then, after a brief depression (1904-06), business picked up somewhat and there was even an increase of production.

This, as was to be expected, gave way to another economic crisis (1908-09). Although it did not have such detrimental consequences, it nevertheless badly affected the economy of the country because production, low as it was, began to fall.

As a result, industrial production, particularly in heavy industry, dropped below the level it had attained at the beginning of this century.

The economic crisis of 1908-09 was the last in the history of Russia. The recovery which set in the latter half of 1909 had by the middle of 1910 developed into an industrial boom which lasted up to 1914. Normally, this boom should have grown into an economic crisis but the First World War shunted Russia's economy onto entirely new, military rails. In the four years of upsurge in industry the production of pig iron rose more than 50 per cent and that of coal 75 per cent, the consumption of copper rose 100 per cent and of cotton 20 per cent. Rail freight turnover increased approximately 50 per cent. The table below shows the increase in the output of key commodities in the pre-war years*:

Commodity (in pods)	Volume of output		1913 (per cent of 1900)
	1900	1913	
Pig iron (million)	176.8	283.0	160.0
Section metal (iron and steel; thousand)	163,024	246,551	175.8
Coal (million)	986.3	2,200.1	223.0
Oil (million)	631.1	561.3	88.9
Cotton yarn (thousand) . .	14,605	20,216**	139.8
Sugar (million)	48.5	75.4	155.5

Being a young capitalist country, Russia developed faster at the close of the 19th and the beginning of the 20th century than many other countries. A study of world industrial production indices for mining, metallurgical, chemical, textile and food industries and the industrial output figures of different countries between 1860 and 1910 will show that world production rose 500 per cent, in Britain 150 per cent, in France more than 200 per cent, in Germany 500 per cent, and in Russia 950 per cent.

Such rates of growth, however, were too low to enable Russia to catch up with the advanced countries in the level of production in these 50 years. At the outbreak of the war, industrial output in France was 150 per cent greater than in Russia, in Britain 360 per cent, in Germany 500 per cent, and in the U.S.A. 1,300 per cent.

* This table is compiled on the basis of figures from P. A. Khromov's *Ekonomicheskoye razvitiye Rossii...* (Economic Development of Russia. .), pp. 456-61.

** For the year 1910.

Moreover, the bulk of Russian commodities was accounted for by the light and food industries. The machine-building industry, the basis of industrialisation, yielded less than seven per cent of the total volume of industrial production. Russia either did not have or was just beginning to build automobile, aircraft, electrical engineering, chemical and some other industries. About 50 per cent of her farm machines were imported.

The organic composition of capital in Russian industries was extremely low.* This was particularly true of the enterprises in the Urals, an old large industrial region where manual labour predominated.

The productivity of labour in Russian industry was about a tenth of the level in the U.S.A. despite the fact that from 1900 to 1913 it had risen 50 per cent.

A distinguishing feature of industrial development at the beginning of the 20th century was the rapidly progressing concentration of production.

In 1900 large enterprises (with 500 workers and more) employed 795,000 workers, or 46.7 per cent of the total, while in 1914 this figure rose to 1,108,000, or to 56.5 per cent.

Nine giant iron and steel plants accounted for more than a half (53.1 per cent) of the metallurgical industry's output.

Six large enterprises, each producing over five million poods of oil annually, yielded 65 per cent of the total oil output.

The picture was the same in all other industries.

But, as Lenin said, "concentration at a certain stage of its development leads to monopoly."

Several very big monopolies, including *Prodamet* and *Truboprodazha*, were founded in Russia in 1902.

A large number of syndicates were established in 1903-04. They included those controlling the cement industry, the marketing of nails and wire, the *Produgol* which marketed the Donets Basin coal, the *Prodvagon* which managed carriage-building plants and the *Krovlya* that united ironworks in the Urals.

By 1907-09 the big monopolies had been holding undivided sway in all industries. In 1914 there were over 150

* Organic composition of capital is the ratio of the sum total of the means of production to the amount of manpower required to set them in motion.

monopoly associations in the country. The *Prodamet*, for example, united 30 very large metallurgical plants in 1913 and controlled the marketing of 90 per cent of the total output of metal goods. The *Med* syndicate, established in 1907, had control over almost the entire volume of the produce marketed by the country's copper industry. The *Produgol* united 11 coal-mining companies in the Donets Basin and in 1910 accounted for 60 per cent of the coal extracted in this principal colliery of the country.

About 66 per cent of Russia's oil output was in the hands of the Nobel Brothers, the Royal Dutch Shell and the Russian General Oil Corporation.

The formation of monopolies, however, did not promote the development of any one branch of industry. On the contrary, it retarded its growth. Bent on netting as great a profit as possible, the monopolists restricted production and raised market prices.

Take, for example, the voracious policy of the *Prodamet*. Contractors who supplied less than the fixed quota of marketable commodities to the *Prodamet* were paid a premium of 25 kopeks per pood (Paragraph 16 of the contract), whereas those who topped the quota had to pay a fine (also 25 kopeks a pood). The *Prodamet* thus kept the internal market in metal goods in a state of constant tension. This largely explains why the production of pig iron in Russia between 1900 and 1913 increased only 6.2 million poods (from 176.8 million to 183 million), and dropped 18.4 per cent during the war.

The other monopolies followed a similar policy. That is why the development of production was artificially retarded in all branches of industry. Take oil output, for example. In the epoch of imperialism, instead of increasing, it declined. The total volume of oil extracted in Russia dropped from 706.3 million poods in 1901 to 602 million poods in 1916.

Here are some figures showing the rise in prices of key industrial commodities. When the *Prodamet* was founded, the price of pig iron was 40-41 kopeks a pood; in 1911-12 it rose to 65 kopeks a pood.

The *Produgol* syndicate when it was founded in 1904 fixed the "basic price" (price paid to contractors) of coal marketed in the central regions at 7.2 kopeks a pood.

Actually, however, it was marketed at 16-17 kopeks a pood in 1914. Between 1902 and 1912 the price of oil went up 500 per cent.

The money-grubbing policy of the monopolies had an extremely adverse effect on technological progress and hindered the growth of the productivity of labour in all branches of the economy.

Owing to the absence of any serious competition, Russia's big monopolies could easily disregard technical improvements, preferring large-scale employment of cheap labour.

Another important consequence of concentration was the expansion of the sphere of application of foreign capital and the subsequent strengthening of its positions in Russia's economy.

On the eve of the First World War, the level of Russia's general war-industrial potential was much lower than in many advanced countries.

In 1913 she produced 4.2 million tons of pig iron, 4.2 million tons of steel, 29.1 million tons of coal, 9.2 million tons of oil and 1,900 million kwh of electricity.

As a result of her general industrial backwardness the Army and the Navy were short of the most essential weapons and ammunition.

Russia's government and army leaders thought that four million rifles were enough, but when the war broke out eight million were required and subsequently, as a result of losses, this figure rose to 17 million.

The shortage of ammunition was even more serious. The most conservative estimate, based on the experience of the Russo-Japanese War, set the required supply of cartridges at 3,500 million, while only 1,600 million were available.

The war made it imperative promptly and radically to reorganise the entire industry. But this was done extremely slowly. Production in general was not raised, and many key industries even curtailed production.

The crisis in the iron and steel industry had a particularly detrimental effect on the entire economy. Twenty metallurgical plants and 36 blast-furnaces were closed down between 1913 and 1916.

The metal shortage, which had hit the country at the will of the monopolies before the war, assumed vast proportions towards its end.

The situation in the fuel industry was no better. Coal imports from Britain, which amounted to about 500 million poods annually, were stopped during the war.

Consequently, by the end of the war Russian industry and other branches of the economy (transport and municipal economy) were suffering from an acute lack of fuel.

In the meantime, the monopolies amassed fabulous profits. According to official data, which are hardly exaggerated, the net profit reaped by metallurgical plants amounted to 50 per cent of the capital invested. In the metalworking industry the figure was 81 per cent. Bank owners also made enormous profits. In 1916 the income of eight of the biggest banks in Petrograd was nearly 70 per cent higher than in 1915.

An extremely grave situation developed on the railways. Apart from carrying ordinary freight and passengers, they had to transport troops and military supplies and to evacuate the population and industrial plant from front-line zones.

The number of railway carriages required to transport cargo increased from 58,000 in 1913 to 91,500 in 1916, that is, 58 per cent.

Yet the rolling stock hardly increased. The biggest locomotive and carriage-building works had more profitable war orders, and there was a sharp reduction in foreign deliveries of rolling stock. Rail transport was on the verge of a catastrophe.

During the war important qualitative changes took place both in the organisation and in the entire economic system of production. Typical in this respect was the further and still faster concentration of production and its socialisation to the highest degree possible under capitalism.

A handful of monopolists had turned the government apparatus into an instrument for interfering into Russia's economy and a means for amassing huge profits.

Monopoly capitalism had developed into state-monopoly capitalism. The coalescence of state power with financial capital assumed large proportions, and all-round state-capitalist control was established over production.

Big capitalists like Putilov, Ryabushinsky, Guchkov, Tereshchenko and Konovalov, who greatly influenced government policy before the war, took complete control of it during the war.

To subordinate the economy as fast and fully as possible to the needs of the army, the government set up special bodies to supervise the activity of various branches of industry. On August 17, 1915, it promulgated a law authorising the institution of four special councils to manage defence, fuel, transportation and food affairs. The chief among them was the Special Council for Defence Affairs which united and co-ordinated the activity of the other regulating government bodies.

These organs consisted of tsarist officials and the biggest capitalists.

The monopolists on these "supervisory" bodies received the biggest and the most lucrative war orders.

Besides these bodies, the Special Council for Defence Affairs had under it a large number of currency, foreign trade, light industry and other commissions and committees.

Moreover, a number of war industry committees, which were public organisations of the bourgeoisie, were set up along with the state bodies on the initiative of prominent Russian industrialists.

It soon became clear, however, that all these councils, commissions and committees, which worked without plan and where confusion, bureaucracy, speculation and graft reigned supreme, merely complicated the supply of the army. This was unquestionably proved by the catastrophic situation in all branches of the economy and the constantly growing shortage not only of war materiel but of all other necessities for the army.

3. Situation in Agriculture and Its Reconstruction Along Capitalist Lines

In the epoch of imperialism Russian agriculture was beset by a prolonged and profound crisis.

The distinctive features of the economic pattern and social relations in Russia at the beginning of the 20th century were "the most backward system of landownership and the most ignorant peasantry on the one hand, and the most advanced industrial and finance capitalism on the other".*

* V. I. Lenin, *Collected Works*, Vol. 13, p. 442.

Survivals of serfdom still dominated the countryside where 30,000 landed proprietors held almost as much land as 10.5 million impoverished peasant farms crushed by feudal exploitation.

The technical level of agriculture was extremely low. In 1910, according to statistics, there were about 11 million wooden ploughs, 5.7 million wooden harrows, and only 6 million iron ploughs in the country. Almost one out of every three households had no horse.

All these factors were responsible for the low productivity of peasant labour and caused frequent crop failures and repeated famines.

In the Revolution of 1905-07 the peasants throughout the country vigorously protested against the arbitrary rule of the landowners and the autocratic tsarist régime. Their overt and bitter struggle forced the government in 1906 to repeal the redemption payments for their allotments. But this measure obviously could not bring about any tangible changes in the village.

After the terrible crop failure of 1901, the government established a commission to inquire into the reasons for what it called the impoverishment of the central regions. It fully confirmed the opinion of many far-sighted landowners that it was necessary to carry out more decisive measures to reorganise agriculture along capitalist lines.

But tsarism continued to hold the interests of the nobility above everything else. The changes in agriculture were always carried out in such a way as not to encroach on the landed estates. As for the peasant lands, it was considered possible to redistribute them for the purpose of creating a stratum of rich peasants who could become the mainstay of tsarism in the countryside.

The new agrarian reform was worked out by P. A. Stolypin, an ultra-reactionary, former Marshal of the Nobility, governor and then Minister of the Interior and Chairman of the Council of Ministers. Hence the name—Stolypin Reform. The tsar's ukase on the reform was published on November 9, 1906, during the revolution, and adopted as a law on June 14, 1910.

The primary purpose of the reform was to replace the semi-feudal communal system of land tenure with private ownership of land. Under the new law, every peasant could

leave the commune and receive a title to the allotment he had tilled as a commune member with the right to sell, mortgage or to dispose of it in any other way. Moreover, the land was allotted in one place, conditions permitting. Such holdings were called *otrubs*. *Otrubs* with farm structures and houses were called *khutors*.

The reform was to concentrate land in the hands of the prosperous section of the rural population (the kulaks). Two categories of peasants, the rich and the poor, persistently demanded the allotment of *otrubs*, but for diametrically opposite reasons. The kulak wanted to get as much land as possible at the expense of the poor peasant to have better conditions for running his farm. The poor peasant hoped to sell his *otrub*, repay his debts, and find a job in the town.

Another important measure of the Stolypin Reform was the introduction of certain changes into the activity of the Peasant Land Bank in conformity with the new conditions in the countryside. This Bank was set up in the 1880s for the purpose of helping the gentry sell land as profitably as possible. Now it was assigned the additional task of stimulating the growth of kulak holdings.

From 1906 to 1915 the Bank assisted in the sale of 3,257 estates (totalling 4,326,000 dessiatines), valued at 465 million rubles. In the interests of the landed proprietors, it raised the price of land by approximately 50 per cent. Consequently, the landowners whose estates became a burden to them could profitably sell their land.

At the same time, small peasant holdings were sold on a large scale. About 1.2 million peasant households sold 3.9 million dessiatines of land between 1908 and 1915. Their holdings as well as the landowners' lands were bought up by the kulaks who were given broad opportunities to obtain bank loans.

Finally, the third measure which became a component of the Stolypin Reform was the change in the government policy of resettling peasants from the densely populated European gubernias in the Asian part of Russia.

After the Reform of 1861 the government had prohibited the resettlement of the peasants from the central regions right up to the beginning of the 20th century. This was done in the interests of the landowners who required a surplus rural population.

On March 10, 1906, the government passed a bill permitting the peasants to resettle wherever they wished. At the same time they were granted loans by the Peasant Land Bank and property rights to the land on which they resettled.

The government saw fit to change its resettlement policy for the following reason. As capitalism developed, the expropriation of peasant land continued on an ever increasing scale. The land hunger of the peasants became absolutely unbearable after the Reform of 1861. Yet, east of the Urals there were vast tracts of uncultivated fertile land.

This new measure could have brought about an increase in agricultural output and a general economic upsurge. But it was primarily for political reasons that the government changed its resettlement policy. The Revolution of 1905-07 disclosed the full depth of the agrarian crisis and stirred the revolutionary forces in the countryside to greater action. By resettling a part of the peasants, the authorities had hoped to ease the tension in the countryside, reduce the rural overpopulation and dampen the revolutionary spirit of the peasants. "The farther you go," the landowners joked hopefully, "the quieter you'll be."

At first, the resettlement went on a mass scale. Between 1906 and 1910 over two million peasants moved to Siberia, Central Asia and the Far East.

But from 1910 on no fewer than 100,000 persons returned to central Russia every year. They were all completely ruined and became part of capitalism's reserve army of labour.

"Give me twenty years of peace," Stolypin said, "and I shall reform Russia." But history decided otherwise. The revolution which broke out ten years later for ever did away with the oppression of the peasants.

Nevertheless, the Stolypin Reform had far-reaching consequences.

First, Russia continued to turn into a bourgeois monarchy at an ever increasing rate during the reform. But capitalism in agriculture was developing the Prussian way which left the landed estates untouched. The reform broke up the village communes and stimulated the growth of private farms. By the end of 1915 about 2.5 million peasant households, that is, about 24 per cent of the total, had left the communes and received titles to their holdings. A particu-

larly large number of peasants left the communes in the gubernias where the capitalist forms of agriculture were predominant (the Ukraine west of the Dnieper, Novorossiia, Byelorussia, and others). Here between 33 and 50 per cent of all households received titles to their land.

Secondly, the reform undermined the labour rent system and other survivals of serfdom. The capitalist system led to the rise of large farms, encouraged the use of farm machinery and fertiliser and the introduction of new farming methods, all of which led to the growth of production. Only once from 1909 to 1913 was the total grain harvest less than 4,000 million poods (in 1911), and it was as high as 5,404.1 million poods the year before the outbreak of the war, despite the fact that the rural population had decreased in number.

The average annual potato harvest in the five years from 1911 to 1915 increased six or seven times and that of tobacco five times over the figure for the first five years following the 1861 Reform.

The cultivation of new crops and the expanding production of potatoes, tobacco, beet and cotton also testified to the progress in agriculture in the pre-war period of the 20th century.

But the increase in grain production at the time was due to the expansion of the sown areas and not to higher yields. As for the yields of staple crops, they were extremely low compared with those in other advanced countries.

From 1911 to 1915 the average wheat yield in Russia was 45 poods per dessiatine, whereas in Britain and Germany it was 146 poods; in this period Russia grew 54 poods of rye per dessiatine and Germany 120 poods, and so forth.

Certain achievements, although even more modest, had been attained in stock-raising. The cattle population in pre-revolutionary Russia grew slowly. The number of horses rose from 18.6 million in 1856 to 34.4 million in 1914, the number of cows from 26.2 million to 51.3 million head, and that of sheep from 52.2 million to 78.7 million.

Thirdly, the Stolypin agrarian reform considerably hastened the differentiation of the rural population, of whom 65 per cent were poor peasants, 20 per cent middle peasants and 15 per cent kulaks.

By buying up the holdings of the ruined peasants, the kulaks gained possession of a vast amount of land. The

first agrarian reform (1861) was used by the landed proprietors to pave the way for capitalism; now, after the enforcement of the Stolypin Reform, the same was being done by the kulaks.

Fourthly, the Stolypin Reform aggravated class antagonisms in the countryside, created a breach between the rural bourgeoisie (kulaks) and the land-hungry poor peasants and revolutionised the peasant masses.

The peasants' struggle against the landowners and the kulaks became particularly bitter as a result of the war's detrimental impact on agriculture. The drafting of peasants into the army caused an acute shortage of labour in the countryside and the situation was further worsened by the increasing outflow of manpower into towns.

Agriculture suffered heavily from the sharp decrease in the cattle population, especially in draught animals (horses and oxen). By 1917 the number of horses had decreased by 33 per cent from pre-war, cows by 24 per cent, sheep and goats by 13 per cent and pigs by 41.5 per cent.

Farm machines had fallen into almost complete disrepair and there was only an insignificant increase in their number. As a result of the militarisation of industry the production of farm machines by 1917 had declined by 85 per cent. In February 1916 a speaker of the All-Russia Chamber of Agriculture expressed the views of Russian industrialists in the following cynical terms: "No self-respecting factory owner or entrepreneur will want to manufacture farm machines and implements which even in the most favourable conditions bring him insignificant profits when there is a money orgy going on all around and even the worst equipped enterprises do excellent business and bring in a profit of 50, 100 and even 200 per cent on the fixed capital after all sorts of deductions."*

During the war the crop area systematically decreased and the yields dropped. The crop area on the whole was reduced by approximately 10 million dessiatines, although in Siberia it increased by seven per cent. The sown area in some regions, previously major grain producers, was cut down catastrophically. In the North Caucasus, it was decreased 44 per cent, in Novorossiia 40 per cent, in the

* *Vestnik Vserossiiskoi selskokhozyaistvennoi palaty* (Information Bulletin of the All-Russia Chamber of Agriculture), 1916, Nos. 2-3.

lower reaches of the Volga 35 per cent, and in the Middle Volga 25 per cent. As regards the grain harvests in 50 gubernias of Russia, they were as follows: 4,240 million poods in 1913; 3,278 million in 1914; 3,590 million in 1915; 3,036 million in 1916 and 2,646 million in 1917. In the last year of the war the grain harvest was thus slightly over two-thirds the figure in 1913.

It was not surprising, therefore, that the revolutionary actions of the peasants gained in scope as the war continued. To the nation-wide demands for an end to the war and the overthrow of the autocratic regime, they added slogans calling for the nationalisation of land and confiscation of all landed estates.

These just demands of the peasants, however, were fulfilled only after the victory of the October Socialist Revolution.

4. Rise of Finance Capital and Expansion of Domestic and Foreign Trade

To obtain a fuller picture of the general economic situation in Russia in the epoch of imperialism it is important to analyse the size and the composition of the national income.

Russia's pre-war national income rose from 6,579.6 million rubles in 1900 to 11,805.5 million rubles in 1913, that is, almost 80 per cent. Compared with that of other countries, it was extremely small, particularly when taken per capita. In Britain, the national income per capita was 463 rubles, in Germany 292 rubles, in France 355 rubles and in the U.S.A. 695 rubles, whereas in Russia it was only 102.2 rubles. These figures graphically testified to her general economic backwardness.

The distribution of the national income among the different classes presents an interesting picture, and can be assessed on the basis of the data on the wages of workers and the profits of the capitalists. According to the 1908 industrial census, the annual wages of Russia's 2,253,800 workers totalled 555.7 million rubles, or 246 rubles per worker. The net profit of her 19,983 entrepreneurs added up to 568.7 million rubles, or 296,000 rubles per factory owner.

In other words, the profits of some 20,000 capitalists exceeded the total sum of the wages paid the 2,253,800 workers.

The bulk of the accumulated capital was concentrated in the banks, whereas in France and Germany most of the money was deposited in savings banks. The predominance of large banking investments was evidence of the high level of concentration of capital and the relative economic weakness of the petty bourgeoisie.

By the beginning of the 20th century the Russian banking system was greatly ramified and efficiently organised.

The entire system was headed by the State Bank of Russia. It was a sort of bank of banks and the issuing, clearing and reserve centre of the country. On January 1, 1914, it had 10 offices in large cities and 127 branches. The development of banking capital at the beginning of the 20th century was characterised by the following data: between 1900 and 1914 all Russian banks (excluding mortgage loan banks) increased their own capital from 479 million to 1,100 million rubles and their deposits rose from 1,560 million to 3,568 million rubles. Hence, the funds for financing industry and trade increased 2,600 million rubles, or almost 130 per cent.

But the changes in the organisation of the banks and the growth of their capital in the epoch of imperialism were overshadowed by the role they played in the economic life of the country.

The bulk of the assets of commercial banks was at the disposal of the biggest of them, which was the direct outcome of the concentration of banking. More than a half (52.1 per cent) of all banking capital in 1914 was lying in the vaults and safes of the seven biggest banks—the Azov-Don Bank, the St. Petersburg International Bank, the Russo-Asiatic Bank, the Russian Foreign Trade Bank, the Russian Commercial and Industrial Bank, the Volga-Kama Bank and the Siberian Commercial Bank.

In contrast to the pre-monopoly period, banking activity became inseparable from the activity of the monopolies in industry. This fusion was due to the concentration of shares of industrial enterprises and railways in the hands of the banks, which in their turn extended credits, carried out various financial reorganisations, established personal

unions with industrial and commercial enterprises, and so forth.

The financial oligarchy in Russia was not very numerous but included such extremely influential people as Putilov, Bark, Avdakov, Nobel, Montashev, Leonozov, Goujon, Utin, Plotnikov and Ryabushinsky. The dominant positions these and other people occupied in the country's economy and the power they wielded were due to their millions and to their close ties with Russia's ruling circles. Using these connections they obtained large loans and lucrative government contracts.

Nonetheless, the amount of capital available in the country was insufficient to meet the requirements of the rapidly growing industry. In these conditions it was necessary to seek assistance from foreign capital.

In 1900 Russian capital controlled 201.2 million rubles and foreign capital 49.5 million rubles of the combined assets of joint-stock companies; the corresponding figures for 1913 were 501.1 million and 44.1 million rubles.

But there were industries and banks where foreign capital held sway, for example, in the mining and metallurgical industries, in the Russo-Asiatic, Siberian and several other banks.

Foreign capital was intensively exported to Russia because it was much more profitable to invest in her economy than in the economy of countries where capitalism had reached a high level of development. Discount and interest rates on loans were higher in Russia, the land was cheaper than in the West, and the workers' wages much lower than in any advanced country. Besides, the high customs tariffs in force in Russia in the epoch of imperialism induced foreigners to export capital in the form of money and not commodities.

Internal and foreign state loans were another essential source of capital investment. Russia's state indebtedness rose from 6,392 million rubles in 1901 to 10,488 million in 1914. Towards the end of the war it amounted to 60,000 million rubles.

The repayment of loans and the payment of interest accounted for a substantial part of the state budget expenditure and were a heavy burden on the shoulders of the working people in town and country, the principal taxpayers.

But then the entire budget was drawn up in such a way as to rob the working people.

The fact that from the 1860s to 1914 the budget revenue had increased from 540 million to 5,070 million rubles shows that this was due not only to the growth of state finances but also to the levying of ever more onerous taxes on the working people. Towards the end of the war (1917), the budget revenue added up to 19,000 million rubles. The bulk of the receipts consisted of direct and indirect taxes squeezed out of the working people. A certain part of the revenue accrued from profits yielded by state property and enterprises, which also exploited the working people.

Most of the budget money was spent for maintaining the Army and the Navy, the state railways and industrial enterprises, repaying loans and keeping the inflated government apparatus. At the same time, only 6.6 per cent was allocated for public education.

As soon as the war broke out, the bulk of the revenue was switched over to finance war needs. War expenditure mounted with every passing year. In 1915 Russia spent 25.7 million rubles a day on war and in 1917 this figure rose to 58.4 million rubles. To cover these outlays, the government contracted more and more internal and foreign loans.

One major source of balancing the budget and meeting war expenditures was the issue of paper money and the prohibition of its exchange for gold. The amount of paper money in circulation increased from 1,530 million rubles on July 1, 1914 to 17,175 million rubles on October 1, 1917. In other words, the amount of paper money increased more than eleven times over.

The taxes squeezed out of the working people continued to grow. The attempts to impose taxes on the bourgeoisie who had grown rich on war orders brought practically no results. The taxes levied on superprofits in the latter half of 1916 yielded the insignificant sum of 55 million rubles.

The curtailment of production and the rising cost of living further worsened the lot of the people. The nominal wages rose somewhat during the war. But the cost of living mounted much faster.

Monopoly capital penetrated not only into the industry and banks but also into all the main spheres of commerce. The overwhelming majority of Russian monopoly associa-

tions (*Prodamet*, *Produgol*, *Prodarud*, *Prodvagon* and others), as we have said above, officially operated as "sales offices", but their activity was by no means confined to commerce. As far as the latter was concerned, the monopolies controlled the sales of the greater part of industrial commodities.

The leading banks played a prominent part in large commercial transactions. Wholesale business in grain and coal, for example, was done chiefly through the banks.

Before the war, the growth of production and the development of the social division of labour were accompanied by a steady increase in the volume of domestic trade. This is borne out by the following figures: between 1900 and 1913 registered commodity circulation increased in value from 11,300 million to 18,500 million rubles, or by 64 per cent.

The growth of commodity circulation is evidenced also by figures on foreign trade. Commodity circulation in the Russian European and Black Sea frontier zones, where the bulk of the import-export trade was conducted, rose from 1,260 million in 1900 to 2,641 million rubles in 1913, that is, more than 100 per cent.

The assortment of export goods mirrored the agrarian structure of Russia's economy and her economic dependence on the advanced capitalist countries.

Foodstuffs, raw materials and half-finished goods accounted for more than 90 per cent of Russia's exports, of which wheat composed 40 per cent.

Her chief imports, which were restricted by high tariffs, were machines, certain kinds of industrial raw materials, including cotton, raw silk and wool, and mineral fuel. Russia's principal trading partners were the Western countries.

The Russian Government's foreign trade policy at the beginning of the 20th century was to export as much as possible. The slogan "Eat less, export more", advanced by Finance Minister Vyshnegorodsky, bourgeoisie's placeman, at the end of the 19th century prevailed right up to the outbreak of the First World War.

The war dealt a blow to Russian trade, too. The output of industrial goods and foodstuffs sharply declined and the prices skyrocketed.

The food situation was especially difficult. The government's efforts to stave off the catastrophe by regulating the

distribution of food proved futile. The rationing of the basic foodstuffs was ineffective. For example, in 1916 the population of Moscow received only 37 per cent of their bread rations, 44 per cent of meat, 70.7 per cent of cereals and 13.3 per cent of butter. Most of the food had to be bought on the market, where the prices soared and soon became prohibitive for the majority of the population.

Incidentally, the so-called fixed prices for food rations also rose as a result of the incessant demands of the land-owners and the kulaks who controlled agricultural commodity output.

Seeing that famine was inevitable, the government, at the close of 1916, adopted a decision on the appropriation of surplus grain, which was expected to yield 772 million poods of grain. But this measure, too, was not enforced.

The increasing exploitation of the working people, economic dislocation, privation and hunger, war difficulties and sacrifices, and complete lack of rights, exacerbated internal class contradictions to the utmost, provoked general dissatisfaction with the policy of tsarism and created a revolutionary situation in the country.

5. Overthrow of Autocracy. The Economic Policy of the Bourgeois Provisional Government

With Russia's entry into the epoch of imperialism, the social and economic foundations of the tsarist regime began to crumble. Economic, political, military and national contradictions were highly aggravated, and the overthrow of tsarism was predetermined by the entire course of the country's historical development.

But, Lenin said, "apart from an extraordinary acceleration of world history, it was also necessary that history make particularly abrupt turns, in order that at one such turn the filthy and blood-stained cart of the Romanov monarchy should be overturned at *one stroke*. This all-powerful 'stage manager', this mighty accelerator was the imperialist world war".*

The war united all the progressive forces of the country to fight against tsarism. In February 1917, the monarchistic

* V. I. Lenin, *Collected Works*, Vol. 23, p. 299.

regime was overthrown. One of the principal goals of the bourgeois-democratic revolution was thus achieved.

Taking advantage of the specific situation in the country, the bourgeoisie seized power and set up a provisional government made up of big capitalists and bourgeoisified landowners.

Side by side with this government there appeared political organs elected by the revolutionary people—the Soviets of Workers' and Soldiers' Deputies which embodied the power of the proletariat in alliance with the peasantry. The result was a peculiar interlocking of two dictatorships—the dictatorship of the bourgeoisie and the revolutionary-democratic dictatorship of the proletariat and the peasantry.

The Soviets were set up with the active participation and under the guidance of the Russian Social-Democratic Labour Party. But, for certain reasons, it happened that immediately after the revolution the majority in the Soviets turned out to be on the side of the petty-bourgeois parties—the Mensheviks and the Socialist-Revolutionaries.

Although they had accomplished the principal task of the revolution, that of overthrowing tsarism, the working people proved unable to solve other urgent issues (agrarian and nationalities questions, cessation of the war, introduction of an eight-hour working day, etc.).

Under these circumstances it was inevitable that Russia should go through a transition period taking her from the first stage of the revolution to the second, from the bourgeois-democratic to socialist revolution. This period lasted about eight months (February-October 1917).

Lenin, who was at the helm of the revolution, worked out a plan for the peaceful development of the revolution into its highest stage, expounding it in some of his works, particularly in the April Theses ("The Tasks of the Proletariat in the Present Revolution"). In this period, utmost importance was attached to the revolutionary mobilisation of the masses, to the formation of the political army of the revolution. The slogan "All Power to the Soviets" was advanced, and the mask was torn off the anti-popular policy of the Provisional Government.

Later, in July 1917, when the Provisional Government and the Menshevik and Socialist-Revolutionary leaders in the Soviets had fully exposed themselves in the eyes of the

people and set out to exterminate the revolutionary forces, the "All Power to the Soviets" slogan was temporarily replaced by one which called for preparations for the overthrow of the bourgeois rule by force of arms.

By this time the masses had fully convinced themselves of the Provisional Government's inability to tackle the vital issues which the revolutionary people wanted to be solved, such as withdrawal of Russia from the war, transfer of the land to the peasants, organisation of industrial production and economic rehabilitation, measures to save the country from the looming famine, establishment of an eight-hour working day, regulation of money circulation, etc.

The bourgeois authorities had no intention of solving these issues positively because that would have been against the interests of the ruling classes.

They used economic dislocation and the famine to amass huge profits and to fight against the revolution. In August 1917, Ryabushinsky, one of the biggest capitalists in Russia and a diehard reactionary, callously proposed to strangle the revolution with the "gaunt hand of hunger". Russia's continued participation in the war also corresponded to the imperialistic ambitions of the bourgeoisie and its hunt for high-monopoly profits.

Meanwhile, the economy was falling into still greater ruin and chaos. The closure of industrial enterprises assumed threatening proportions. The newspaper *Rabochy Put* wrote at the time that 568 enterprises employing a total of 104,372 workers had been closed down from March to July 1917.*

In 1917 the total output of the country's mining, metal-working, chemical and cotton industries dropped 44, 36, 34 and 33 per cent respectively** as compared with 1916.

The average freight carried daily by the railways in the first nine months of 1917 was 22 per cent below the figure in the corresponding period of 1916, and in October 1917 it came to only 66 per cent of the 1916 level. More than 25 per cent of the locomotives and railway carriages had fallen into disrepair. The fuel crisis had reached its peak. Low as it was, coal output in 1917 declined 28.5 per cent.

An extremely difficult situation prevailed in agriculture. We have already said that a smaller area was being culti-

* *Rabochy Put* (Worker's Path), Nos. 3, 5, 31, 1917.

** *Vestnik Statistiki* (Statistical Bulletin), Book XIV, p. 153.

vated, that there was a shortage of manpower and that fewer machines and draught animals were available. Consequently, field work in 1917 was carried out at a low level. The old stocks of grain had long been depleted and there was no chance of their being replenished in any substantial measure.

The fact that almost 6,500 million rubles worth of banknotes had been issued between March and October 1917, or 2.5 times as much as in the same period of 1916, testified to the complete collapse of the financial system. The violation of the system of money circulation led to a further rise in prices and greater profiteering.

Thus, the ruined and famine-stricken Russia was rapidly heading for a complete economic catastrophe.

The proletarian party had foreseen that disaster could not be averted and had worked out a concrete programme of action, formulated the principal demands in the economic field and its own economic platform long before it overwhelmed the country. These demands were stipulated with the utmost clarity in the April Theses, *The Impending Catastrophe and How To Combat It* and other works by Lenin, and in Party decisions.

A special role was played by the Party's Sixth Congress, held from July 26 to August 3, 1917. It noted that the country was passing through a profound economic crisis and drew up concrete measures to bring it out of the critical situation.

It was necessary promptly and effectively to intervene in all spheres of production and distribution, nationalise the banks and syndicated enterprises, organise trade between town and country, abolish commercial secrecy, forbid the closure of enterprises and then establish workers' control over the enterprises that had not yet been nationalised, stop the issue of banknotes and repudiate the state debts of the tsarist regime and the Provisional Government, reform the tax system, correctly distribute labour and introduce universal labour conscription.

All these measures, however, could be carried out only by the revolutionary power of the proletariat and the peasants. Therefore, it was necessary to overthrow the bourgeois Provisional Government and establish the dictatorship of the proletariat.

Accordingly, the Congress prepared the Party and the whole people for armed insurrection. The actions of the bourgeoisie forced it to renounce the idea that the peaceful development of the revolution was possible and put forward the task of overthrowing bourgeois rule by force of arms.

The feasibility of the new slogan was proved by the rapid growth of the revolutionary movement in the country. This movement had several aspects. Firstly, it was a general movement for peace, against the imperialist war which had brought suffering and death. Secondly, it was a peasant movement against the domination of the landowners, for freedom from exploitation and for land. Thirdly, it was a movement of the non-Russian nationalities for liberation and the abolition of national oppression. Fourthly, it was a movement of the proletariat, the principal and guiding force of society, for socialism, for a society in which there would be no exploitation or oppression, in which peace, labour, freedom, equality, fraternity and happiness of all people would reign supreme.

The party of the working class united all these revolutionary movements into a single mighty torrent and directed it towards one goal, that of overthrowing capitalism, and towards the victory of the proletarian revolution.

Chapter IV

THE ECONOMY OF SOVIET RUSSIA AT THE TIME OF THE VICTORY AND DURING THE CONSOLIDATION OF THE SOCIALIST SYSTEM (1917-20)

1. World Historic Significance of the Great October Socialist Revolution

Russia's socio-economic development in the pre-revolutionary period, as shown above, proceeded in conditions of extremely acute contradictions which reached their peak in the epoch of imperialism, particularly during the First World War. Russia was justly considered the focal point of imperialist contradictions and the weakest link in the world system of capitalism.

Imperialist Russia's socio-economic pattern was distinguished by the fact that the newest, highly-advanced forms of monopoly capitalism and semi-feudal ownership of land and backward peasant economy existed side by side and, what is more, were closely interlinked.

By October 1917 the revolutionary situation in the country had come to a head, thus making it possible to depose the bourgeois-landowner Provisional Government and establish the dictatorship of the proletariat with relative ease and minimum loss of life.

There were several internal political and international factors that ensured the swift and complete victory of the socialist revolution.

Firstly, the revolution was led by the battle-steeled and well-organised working class which had passed through the stern school of struggle in the 1905-07 and February 1917 revolutions.

Secondly, the working class and the peasant millions, of which the poor peasants were the backbone, had already formed an alliance in the preceding struggle.

Thirdly, in the course of the revolution the proletariat established and consolidated its organs of power, the Soviets of Workers' Deputies. Together with the Soviets of Soldiers' and Peasants' Deputies, the Soviets of Workers' Deputies were a form of political organisation embodying the alliance of the working class and the peasants under the leadership of the workers.

Fourthly, Russia's revolutionary forces had to contend with a comparatively weak enemy, the inexperienced and ill-organised Russian bourgeoisie and the discredited petty-bourgeois parties (Socialist-Revolutionaries and Mensheviks).

Fifthly, the leading force of the revolution was the Russian Communist Party, the most revolutionary party in the country, relying in its activity on the Marxist-Leninist teachings.

Among the favourable international factors conducive to the victory of the revolution was the military situation in the West. The revolution unfolded at a time when the First World War was at its height and the armed forces of the imperialists could not be used against it. At the same time, the rising revolutionary movement in the West diverted the attention of the imperialists from the events in Russia and increased the number and the activity of supporters of the October Revolution abroad.

It was in these conditions that the Second All-Russia Congress of Soviets, which opened in Petrograd on October 25 (November 7), 1917, proclaimed that it had taken power into its hands.

"Backed by the will of the vast majority of the workers, soldiers and peasants," the Congress proclamation read, "and by the victorious uprising of the workers and garrison which has taken place in Petrograd, the Congress takes power into its own hands."

The following night the Congress adopted the Decrees on Peace and Land and formed a workers' and peasants' government. These acts resolved the most outstanding issues of the time and translated into life the hopes of millions of working people in Russia.

The Decree on Peace summoned all "belligerent nations and their governments to start immediate negotiations for a just democratic peace", that is, peace without annexations and without indemnities. It proposed an immediate cease-

fire for three months for conducting peace talks and appealed to the class-conscious workers of Britain, France and Germany (the three largest states participating in the war) to help conclude peace successfully.

The Decree on Land envisaged the immediate abolition of landed estates without any compensation and their transfer (including crown, monastery and church lands) to the Soviets of Peasants' Deputies. The land reform was to be implemented in accordance with the Mandate drawn up on the basis of 242 local peasants' mandates received by the central organs.

Private ownership of land was abolished for ever. Land and its mineral wealth were proclaimed the property of the whole people.

In conformity with its decision to set up a workers' and peasants' government, the Second Congress of Soviets formed the Council of People's Commissars, consisting of the heads of twelve Commissariats, under Lenin's chairmanship.

The period immediately after the overthrow of the Provisional Government was one of "the victorious, triumphal advance of the dictatorship of the proletariat and Soviet power, when great masses of the working and exploited people of Russia were drawn to the side of Soviet power definitely and irrevocably.*

The establishment of Soviet power in Petrograd was promptly followed by news that the revolution had won in Moscow, Minsk, Ivanovo-Voznesensk, Kazan, Ufa, Saratov and Yaroslavl, and then in Tashkent, Baku, Krasnoyarsk and other cities.

Soon Soviet power was established throughout Siberia and the Far East, and somewhat later in the Ukraine and Transcaucasia. Organs of state power and state administration were formed throughout the country.

Of tremendous significance was the publication of the Declaration of the Rights of the Peoples of Russia, which granted nations the right to self-determination, and of the laws on the establishment of an eight-hour working day, on female and adolescent labour, insurance against unemployment, sickness benefits, and so forth.

* V. I. Lenin, *Collected Works*, Vol. 27, p. 175.

At the same time, another very important problem was being resolved, that of Russia's withdrawal from the war and the creation of conditions for peaceful work. In March 1918 Soviet Russia signed the onerous peace treaty of Brest-Litovsk.

Lenin, who had insisted on the conclusion of a peace treaty, however harsh its terms, foresaw that the situation in Russia and abroad would change in favour of Soviet power and that further developments would release the country from the onerous obligations it imposed.

The Great October Socialist Revolution radically altered Russia's social and economic structure and paved the way for the further development of the productive forces and social progress.

The October Revolution was of vast international significance. Its impact on world history was manifested in two ways. It influenced the revolutionary movement in many countries and demonstrated that the basic features of the Russian revolution would inevitably recur in all other revolutions.

The ideas of the October Revolution stimulated the activity of the exploited people throughout the world. Mass revolutionary actions shook capitalism in Germany, Austria-Hungary and many other countries in Europe, Asia and America.

The enslaved peoples of the colonial countries also rose against imperialism.

The chain of world imperialism was rent and Russia, its biggest link, dropped out. An end was put to the undivided rule of imperialism. The banner of socialism was raised over one-sixth of the globe. The world split into two camps: the camp of moribund capitalism and the camp of rising socialism.

The October Socialist Revolution ushered in a new era in human history, the era of liquidation of all forms of exploitation of man by man, the era of the triumph of communism throughout the world.

It also accumulated vast experience in revolutionary struggle and showed that its basic features would inevitably be repeated by socialist revolutions in all other countries. Russia's experience in accomplishing socialist revolution demonstrated that it was only the joint efforts of the prole-

tariat and the peasants under the leadership of the working class that could bring victory.

The class alliance of the proletariat and the peasantry, which found expression in the establishment of the dictatorship of the proletariat, was a most important prerequisite for the victory of the revolution and the formation of socialist relations.

The subsequent transformations and socialist construction in Russia not only secured the political rights of the working people, but radically improved their material well-being.

The Soviet state found and demonstrated to the whole world the only correct way to solve the nationalities question.

Henceforth, in this multinational country the relations between peoples were guided by the principle of equality and mutual respect. The same principle formed the cornerstone of the relations between the Soviet state and all the other countries. "For the first time," the C.P.S.U. Programme states, "there emerged in the international arena a state which put forward the great slogan of peace and began carrying through new principles in relations between peoples and countries. Mankind acquired a reliable bulwark in its struggle against wars of conquest, for peace and the security of the peoples."*

This path of development, however, clashed with the plans of the Russian and foreign bourgeoisie. The Russian bourgeoisie and the landowners could not reconcile themselves with the loss of their lands, factories, banks and other property nationalised during the revolution.

Foreign capitalists also lost the enormous profits they had been amassing by ruthlessly plundering and exploiting the people of Russia and her wealth.

Soviet Russia's withdrawal from the war greatly alarmed the Entente imperialists because it weakened their armed forces and increased the desire for peace all over the world.

Moreover, the Russian revolution won the admiration and support of the proletariat throughout the world, and this increased all the more the imperialists' fear of "the flames of the socialist revolution" (Lenin).

By the summer of 1918 the Russian and foreign counter-

* *The Road to Communism*, Moscow, 1961, p. 456.

revolutionary forces had formed a close alliance and launched an all-out military campaign against young Soviet Russia.

For three years the Soviet Republic waged a bitter fight against the armies of fourteen imperialist countries and numerous local counter-revolutionaries whom they abundantly armed and supplied.

The foreign intervention began on March 9, 1918, with the landing of British troops at Murmansk. They were followed by the Japanese who disembarked in Vladivostok on the night of April 4. In May the Germans occupied a part of the North Caucasus and Transcaucasia. The same month the imperialists inspired the uprising of the 40,000-strong Czechoslovak Corps in all the biggest towns along the railway leading from Penza and Syzran to Irkutsk and Vladivostok.* In July and August British troops seized Archangel and several other towns in the North, and Baku, Ashkhabad and a large part of Central Asia in the South.

The interventionists and the whiteguards thus occupied large areas in the Ukraine, in the North, in Siberia, the Urals, the Caucasus, Central Asia and the Far East.

By November 1918 the territory of the Soviet Republic embraced only 25 gubernias in the central and northern belts of the European part of the country and their cultural and political centres—Moscow and Leningrad.

All through the second half of 1918 the Soviet Republic waged fierce battles against the superior forces of the foreign and internal counter-revolution which were attacking it from all directions.

The revolutionary movement in the West, and especially the revolutions in Germany and Austria-Hungary, helped the young socialist state considerably to strengthen its position. The latter gave the Soviet Government an opportunity to repudiate the Brest-Litovsk Peace Treaty.

In 1919-20 the imperialists undertook new and ever more vigorous steps to destroy the Soviet Republic. The young socialist state and its army withstood numerous

* Consisting of Czechs and Slovaks, who had served with the Austrian Army and had been taken prisoner by the Russian forces during the First World War, the Corps was at that time, with the permission of the Soviet Government, on its way to Europe via Siberia and the Far East.

massive blows by the joint forces of foreign and internal counter-revolution.

The Soviet Republic had to counter three extremely powerful blows, the so-called three Entente campaigns.

The first, launched early in March 1919, envisaged joint operations by Admiral Kolchak's counter-revolutionary forces in Siberia who were to deal the principal blow from the East, General Denikin's southern whiteguard group, the troops of landowner Poland and General Yudenich's forces in the West, and the British-U.S. and whiteguard troops in Tashkent and Archangel. By July 1919 the Red Army had routed the main imperialist forces.

The leading role in the second Entente campaign, which lasted from July 1919 to February 1920, was assigned to Denikin's 100,000-strong army formed and excellently equipped by the U.S., British and French imperialists. Denikin struck out from the North Caucasus towards Moscow. At the same time, operations were launched by Polish troops, Yudenich's units (driving from the West in the direction of Petrograd) and other counter-revolutionary forces. The extent of the danger this presented to Soviet Russia may be gauged by the fact that the main enemy forces were smashed by the Red Army only in the battle for Orel, 380 kilometres south of Moscow.

The third campaign started after a short breathing spell at the close of April 1920 with the offensive by the White Poles in the Ukraine west of the Dnieper. At the beginning of June 1920 the remnants of Denikin's forces, which had taken refuge in the Crimea, came out in support of the Poles. The Crimean group of counter-revolutionaries was placed under the command of a Baltic baron, General Wrangel.

The Red Army smashed the counter-revolutionary White Poles at the approaches to Warsaw. In October 1920 Poland renounced its claims to the Western Ukraine and Byelorussia, and signed an armistice.

In November 1920 the Red Army routed the remnants of the counter-revolutionary forces in the Crimea. Thus, by the end of 1920, the main forces of the interventionists were completely defeated.

The Soviet Republic could now proceed with Lenin's plan of building socialism in Russia. But there were enormous difficulties standing in the way of economic

construction. The havoc wrought by the First World War was aggravated by the damage caused by the civil war and the intervention. The invaders everywhere barbarously destroyed the productive forces of the young socialist state. In 1920 the volume of industrial production was only 22 per cent of the 1917 low indices (818 million and 3,848 million pre-war rubles respectively).

Especially big were the human losses. Academician S. G. Strumilin has estimated that 14.5 million persons aged 16 to 49 were either killed or died from epidemics, and more than 4 million were crippled, in the years between 1914 and 1920.

Such was the economic situation in the country in the period of foreign armed intervention and the civil war.

2. Worker's Control and Nationalisation of Industry

Workers' control bodies were set up and began to function before the revolution, despite the opposition of the bourgeoisie. At that time, however, there were very few of them.

The role and the significance of workers' control bodies changed radically when power in the country was taken over by the proletariat in alliance with the peasantry.

Before the revolution the principal goal of workers' control was to keep production going and to combat the sabotage and subversion of the capitalists. After the establishment of Soviet power, the ultimate aim was to implement socialist transformations in the economy. The workers' control bodies operated in complete conformity with the policy of the proletarian state and on its initiative. Their activity extended to all more or less important enterprises and offices. They were made up chiefly of representatives from the trade unions, factory committees and local Soviets. In line with the decree and regulations published on November 16, 1917, workers' control was introduced in all industrial, commercial, banking establishments, agricultural co-operatives and other enterprises. The local bodies of workers' control were organs of Soviet power and their activity was directed by the All-Russia Workers' Control Council. Their decisions were binding upon all owners of enterprises.

Workers' control bodies supervised the economic activ-

ity of the owners and the organisation of production (the nature of instructions issued by the capitalists, maintenance and condition of machinery, raw materials, fuel, fulfilment of orders and their expediency, financial outlays, employment of manpower, and so forth).

The historical significance of workers' control lay also in the fact that it was a sort of school of independent industrial management for the workers.

An appeal issued in April 1917 by the factory committee of the Putilov Works said: "Accustoming themselves to administer individual enterprises, the workers are preparing for the time when private ownership of factories will be abolished and the means of production, together with the buildings erected by the workers, will pass into the hands of the working class."*

The all-embracing and multifaceted activity of the workers' control bodies prepared the working class first for the nationalisation of individual enterprises and then of whole industries.

An enormous role in the organisation of industrial production management and nationalisation of industry was played by the Supreme Economic Council in the capital and by local economic councils formed in accordance with the government decree of December 2, 1917.

In the first few months after the revolution it was impossible to nationalise industry on a mass scale. The Council of People's Commissars and the local organs of Soviet power nationalised only very important enterprises or those which were in danger of being closed down or whose equipment, raw materials, fuel and finances were being squandered by the owners. On November 17, 1917, the Council of People's Commissars decreed to nationalise the enterprises of the Likino Manufacturing Company owned by Smirnov; on December 7, 1917, it confiscated the assets of the Bogoslovsk joint-stock mining company and declared it the property of the republic; on December 9, it confiscated the property of the Simonov Metallurgical Company which operated plants in the Urals, etc.

There were various reasons which made nationalisation unavoidable. Coal mines, metallurgical plants and other

* *Natsionalizatsiya Promyshlennosti v SSSR* (Nationalisation of Industry in the U.S.S.R.), (Collection of documents and materials), Moscow, 1954, p. 19.

heavy industry enterprises were taken over because of their importance for the state. A number of enterprises were nationalised because their owners refused to obey the orders of workers' control bodies. The Putilov Works in Petrograd passed into the possession of the republic because of "the joint-stock company's debt . . . to the Treasury of the Russian Republic", and the Sestroretsk Metallurgical Plant was confiscated because the management refused to continue production.

Subsequently, not only enterprises and associations but whole branches of industry were nationalised. In March 1918 the Council of People's Commissars of Turkestan Territory decreed the nationalisation of ginneries. On May 2, the Council of People's Commissars of the R.S.F.S.R. nationalised the sugar industry. On May 22, in accordance with the Decree of the Baku Council of People's Commissars, "all the lands where oil and ozocerite are extracted or where oil and ozocerite are prospected" were confiscated and became the property of the people. Rail transport, which before the revolution was in the main controlled by the government, became the property of the Soviet state after the revolution, and by mid-1918 all railways and spur-tracks owned by private companies were nationalised.

The merchant marine was taken over by the state in January 1918.

The nationalisation of the country's leading financial establishments—state and joint-stock commercial banks—played an exceptionally important role in the reorganisation of the economy.

The State Bank was nationalised immediately after the October Revolution. In this way the whole banking system was made dependent on the central government. Private joint-stock banks were nationalised on December 14, 1917. On January 21, 1918, the Soviet Government published a decree repudiating the state loans contracted by the tsarist and the Provisional Government, thus delivering the country from its debts of thousands of millions of rubles to foreign magnates.

In April 1918 the Soviet Government carried out another important measure: it established state monopoly over foreign trade.

The vast job of introducing workers' control and carrying out nationalisation was crowned by the govern-

ment's decree of June 28, 1918, on the nationalisation of all large-scale industries. The decree stated that nationalisation was a means of "resolutely combating economic chaos and food shortage and consolidating the dictatorship of the working class and the poor peasants".

So did the new, socialist mode of production come into existence and gain strength in Soviet Russia. The nationalisation of large-scale industries, land, finance and banking systems, transport and foreign trade and the formation of economic administrative bodies gave the young Soviet Republic command positions in the country's economy, and it began to introduce new socialist relations of production.

The nationalisation of industry continued throughout the years of the civil war and foreign intervention. By October 1, 1919, 2,522 industrial enterprises had been nationalised; by April 1, 1920, the number had risen to 4,141, and by November 1, 1920, the state had taken over more than 4,500 enterprises employing one million workers. At the time nationalisation of industry made it possible to accomplish the following principal tasks:

1) to abolish the material basis of the internal counter-revolutionary bourgeoisie;

2) to concentrate in the hands of the socialist state the material resources essential for successfully waging the civil war against the counter-revolutionary forces driving from all sides on the young workers' and peasants' republic.

The latter was especially important considering that industrial resources at the time were in a ruinous state.

The difficult situation in all branches of industry was due to the economic dislocation engendered by the war, the depreciation of equipment, shortage of raw materials, fuel and labour, and food difficulties.

The general condition of industry was as follows*:

	1913	1917	1918	1919	1920
Gross output (in million pre-war rubles)	5,621	3,849	1,845	955	818
Number of workers (thousand)	2,203	2,596	2,011	1,334	1,223
Gross output per worker per year (in pre-war rubles)	2,251	1,482	917	715	669

* *Narodnoye khozyaistvo SSSR v tsifrakh* (The National Economy of the U.S.S.R. in Figures), Moscow, 1925, p. 403. *Itogi desyatiletiya*

Thus, in 1920 gross industrial output decreased 8.57 per cent from 1913, the number of workers declined 45 per cent and annual productivity per worker fell over 75 per cent.

A glance at the production figures in the key branches of industry shows a catastrophic decline in the output of some basic products*:

	1913	1920	1920 (per cent of 1913)
Coal (million poods)	1,738.4	406.6	23.4
Oil (million poods)	564.3	233.9	41.4
Iron ore (million poods) . .	638.4	10.2	1.6
Copper (million poods) . . .	2.1	0	0
Cement (million barrels) . .	12.2	0.4	3.2
Cotton thread (million poods)	16.0	0.8	5.0
Sugar (million poods)	82.8	5.5	6.6
Vegetable oil (million poods)	29.5	1.0	3.4

The most serious blow dealt by war was to the fuel industry. There was not enough coal either for industrial establishments or transport. The principal collieries—the Donets Basin, the Urals and Kuznetsk Basin—were in the fighting zones and virtually lay in ruin. Their output in 1920 had dropped 77.2 per cent from the 1917 figure. The Moscow Basin was the sole coal-producer in the country whose output remained at approximately the same level all through these years.

Although the output of oil did not fall so low, it was extremely difficult to deliver it to the central regions. In 1918 only 95.2 million poods were shipped from Baku and Grozny and in 1919 oil shipments dropped to almost zero.

In these conditions special attention was focussed on the more accessible though less calorific types of fuel—wood and peat. Even locomotives were burning firewood.

Millions of civilians and servicemen were mobilised to lay in stocks of firewood.

The peat industry was the only branch of the economy which did not curtail production during the war, but, on the contrary, expanded it.

Sovetskoi Vlasti v tsifrakh, 1917-1927 godakh (Decade of Soviet Rule in Figures, 1917-27), Moscow, 1927, p. 242.

* *Russkaya promyshlennost v 1921 godu i yeyo perspektivy* (Russian Industry in 1921 and Its Prospects), Report of the Supreme Economic Council to the 20th Congress of Soviets, p. XIII.

Firewood and peat naturally could not avert the fuel crisis in the country. On the whole, fuel consumption in the 32 gubernias of the Soviet Republic decreased in 1919 by 45 per cent.

The situation in the iron and steel industry was even worse. The enemy had plundered and wrecked metallurgical plants in the South and in the Urals, and many works in the northwestern and central regions had to close down on account of the shortage of fuel and ores.

Out of the 50 blast-furnaces operating in the South before the war only one was producing metal in 1920. That year the South of Russia yielded only 904,000 poods of pig iron, or 0.5 per cent of the 1913 figure; the central and northern regions accounted for 1,108,000 poods (9.3 per cent) and the Urals produced 5,013,000 poods (9 per cent). During the war much attention was given to the collection and resmelting of scrap metal.

The engineering industry was directly connected with and fully dependent on the fuel and the iron and steel industries. But owing to the fuel and metal shortage many engineering works had to sharply curtail or fold up production.

The production figures of the railway and farm machinery works give a graphic picture of the situation in the engineering industry. There were, for example, only 90 locomotives made in 1920 as against 609 in 1913. Farm machinery works produced 88,800 ploughs and 1,700 threshers whereas the respective figures for 1913 were 667,000 and 110,200.

The majority of the operating engineering plants were making weapons or working on other state military contracts.

The war industry was then concentrated mainly in the Central (around Moscow), Petrograd and Urals regions. Particular attention was devoted to the biggest defence industry enterprises which were given priority as regards fuel, raw-material supplies and manpower.

In the light and food industries priority was likewise given to the enterprises working on military orders. Garment factories were turning out army uniforms, shoe factories—army boots, food factories—tinned rations, and so forth.

The cotton industry was experiencing great difficulties because its principal raw-material base (Central Asia) was cut off from Soviet Russia. In October 1918 the shortage of raw materials forced the Supreme Economic Council to close down 161 mills. Subsequently, many other enterprises suffered the same fate.

Sugar output was sharply reduced too. The chief beet producing regions (the Ukraine), occupied by the interventionists, were also the sites of the biggest sugar refineries, many of which had been destroyed. The output of sugar in 1920 was only just about seven per cent of the 1913 level.

Transport facilities, especially the railways, were in a terrible state. The wrecked tracks and rolling stock, the worn-out equipment and shortage of labour turned this extremely important sector into the weakest link in the country's economy.

As the need for transport grew, its efficiency declined. Over 50 per cent (about 30,000 kilometres) of the railways passed through fighting zones. Sixty-three per cent of the locomotives and about 25 per cent of the carriages were in disrepair in 1920. As a result, rail freight turnover in 1919 and 1920 was but one-fourth of the pre-war level.

The state of all the other transport facilities was just as bad.

During the foreign intervention and the civil war the young Soviet state, which was advancing along the unexplored road of socialist construction, continued to search for better ways of organising production on the basis of public ownership of the means of production.

An important problem in the war years was that of ensuring the industry with manpower. The shortage of workers compelled the government to resort to mobilisation. On October 5, 1918, the Council of People's Commissars issued a decree ordering universal labour conscription. In another decree, of January 29, 1920, it established the procedure of conscripting citizens for work. Millions of people were mobilised to erect fortifications, lay in fuel stocks, help factory workers, etc. Early in 1920, in-between the second and third Entente campaigns, the government assigned several army units to civilian work and Red Army men worked with a will and great enthusiasm.

But these were not the only measures the Soviet Government introduced at the time. It was in this period that the

Leninist principle of material incentive was applied on an ever increasing scale. Early in 1919 the government first introduced the piece-rate system and took measures to strengthen labour discipline and one-man management of production. During the war the Soviet people not only displayed heroism in battle but performed feats of labour. One of the most striking forms of the new, socialist attitude to work was the communist *subbotniks* (voluntary work after working hours).

The first *subbotnik* was organised and carried out on the night of April 12, 1919, by the communist workers of the Moscow Marshalling Yard of the Moscow-Kazan Railway. They stayed after work and, without remuneration, repaired several locomotives that were urgently needed to haul troop-trains to the front. Subsequently, these *subbotniks* were held every week.

The example of the Muscovites was emulated by industrial workers throughout the country. The *subbotniks* spread to the villages where they were organised primarily to assist the families of Red Army men in the performance of various field jobs, etc.

It must be said that the productivity of labour during the *subbotniks* was much higher than usual. At the time Lenin wrote his well-known work *A Great Beginning* in which he said: "Communist subbotniks are of such enormous historical significance precisely because they demonstrate the conscious and voluntary initiative of the workers in developing the productivity of labour, in adopting a new labour discipline, in creating socialist conditions of economy and life."*

At that time, Party and state organs paid particular attention to the organisation and conditions of labour. This was all the more necessary because there were people, even among the leading statesmen, who opposed the enforcement of strict labour discipline, who were against one-man management of production, employment of old specialists, and so on. These people formed the so-called Democratic Centralism group and attempted to push their policy through at the economic discussions.

The system of production management took into account the military situation and the problems confronting the

* V. I. Lenin, *Collected Works*, Vol. 29, pp. 423-24.

country. Nationalisation and the need first to meet the requirements of the front made it essential to centralise economic management still more. The main industrial administrative body was the Supreme Economic Council which had several branch administrations.

The central bodies exercised control over the production and the supply and sales operations of all enterprises. The independence of enterprises was restricted and regulated. But industrial enterprises were not the only ones subjected to centralisation; centralised management was instituted over the entire economy. For this purpose, the All-Russia Central Executive Committee at the end of 1918 established the Council of Workers' and Peasants' Defence (the Council of Defence) under Lenin's chairmanship. The Council was vested with enormous authority and was the supreme organ of power in the country during the war.

This system of strict centralisation of management played a positive role in the conditions of war. It made it possible to distribute the country's resources most effectively and to use them to achieve victory over the enemy. The very first steps of the socialist economy during the foreign intervention and the civil war presupposed the necessity of placing economic development on a planned basis. The economy of capitalist Russia was subject to the merciless and irreversible law of competition and anarchy of production. The establishment of the public ownership of the means of production created the possibility and necessity for the application of the law of planned, proportionate development of the national economy.

Early in 1920 it was decided to draw up a single plan for boosting the economic development of the country on the basis of electrification. Called the GOELRO, this plan was designed by a special government commission for the electrification of Russia and approved by the Eight All-Russia Congress of Soviets in December 1920.

The GOELRO plan envisaged the construction of 30 large (for those years) power stations with a total capacity of 1.5 million kilowatts in the course of ten or fifteen years.

At the same time, it was planned to commission new capacities in other branches of the heavy industry, first and foremost in the ferrous and non-ferrous metal and the fuel industries. The rise of the heavy industry would promote the development of transport, agriculture, consumer

goods production, and so forth. The plan provided for the investment of 17,000 million rubles in industry and transport.

The table below lists the key indices of the GOELRO plan.*

	1913	1920	GOELRO plan
Pig iron (million tons) . . .	4.2	0.116	8.2
Steel (million tons)	4.2	0.194	6.5
Copper (thousand tons) . . .	31.1	0.3	81.9
Coal (million tons)	29.1	8.6	62.3
Capacity of district power stations (thousand kilo- watts)	177.0	—	1,750

The GOELRO plan, as the table shows, gave tremendous impetus to the growth of the national economy.

3. Socialist Revolution in the Village. Agriculture and Food Situation

The adoption of the Decree on Land was one of the first blows against the exploiters in the economic sphere and the first step towards the emancipation of the peasants from capitalist exploitation.

The revolution gave the peasants 150 million dessiatines of former landed estates and other privately owned land. Moreover, they no longer had to pay land rent which annually amounted to not less than 500 million rubles and were freed of their 1,300 million debt to the Land Bank.

The government turned over to the peasants 300 million rubles worth of farm implements from the confiscated estates. "In this peasant country," Lenin wrote, "it was the peasantry as a whole who were the first to gain, who gained most, and gained immediately from the dictatorship of the proletariat."**

The principle of land tenure laid down by the Decree conformed to the demands of the peasants for equitable

* P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR* (History of the National Economy of the U.S.S.R.), Vol. III, 1956, p. 91.

** V. I. Lenin, *Collected Works*, Vol. 30, p. 112.

redistribution of land. This principle was also stipulated in the Land Socialisation Law of February 1918.

Despite the fact that by itself the redistribution of land on the basis of equality did not bring about radical social and economic transformations in the countryside for small private farms still existed there, it nevertheless did meet more fully the poor peasants' need for land and stimulated their struggle against the landowners and the kulaks who owned large tracts of land. In conditions of the dictatorship of the proletariat, the equalitarian redistribution of land did not hamper the consolidation of the socialist system. On the contrary, it further strengthened its positions.

All landed estates were confiscated and distributed among the peasants during the last months of 1917 and in 1918.

In the spring and the beginning of summer of 1918 the peasants received land to be sown to spring crops, and in the autumn the distribution of land was completed.

Here and there the kulaks tried to take advantage of the revolutionary events in the countryside. They seized the land confiscated from the landowners, misappropriated farm implements, grain, cattle, and so forth.

The kulaks interpreted the slogan of equalitarian distribution of land in their own way. They demanded that land should be distributed not according to the number of people in a family, but according to the number of able-bodied workers, head of cattle, etc.

The struggle against the kulaks depended on the degree of organisation of the poor section of the peasantry. An important part there was played by the Poor Peasants' Committees which were set up throughout the country in the spring of 1918 in conformity with the government's decision.

In the Voronezh, Kursk, Kaluga, Chernigov and many other gubernias the poor peasants formed armed detachments and fought the kulaks.

As the peasants expropriated the landed estates they frequently redistributed kulak lands among themselves, too. In the summer and autumn of 1918, the peasants took possession of about 50 million dessiatines of kulak land.

In this manner the revolution in the countryside solved a major problem. It did away with the landed estates, established peasant ownership of land, and imposed certain restrictions on the kulaks.

The confiscation of the landed estates and the redistribution of land among different sections of the peasantry resulted in the levelling-out of the peasants' status: the number of poor and kulak households decreased and that of middle peasants increased.

Between 1917 and 1919 the number of landless families dropped 38 per cent. In some areas the figure was even higher as, for example, in the middle reaches of the Volga, where the number of landless peasant families declined more than 60 per cent. The number of households cultivating more than 13 dessiatines also decreased (77.1 per cent) and those possessing four or more horses by 64.1 per cent.

This important socio-economic process nevertheless did not ensure the establishment of socialist relations of production in the countryside. The picture in agriculture very much differed from that in industry, where the high level of concentration of production provided the necessary conditions for its rapid and smooth expropriation and the establishment of socialist public ownership of the means of production. It was different because in agriculture there were millions of small individual peasant households completely incapable of ensuring the swift development of agricultural production. The only correct way of introducing socialist relations in the countryside was through the gradual and voluntary merger of small farms into large collective farms.

The first collective farms in Russia were established in the early days of Soviet rule. An agricultural artel was organised in Nizhni-Novgorod Uyezd in December 1917 and in January 1918 an agricultural commune was set up in Voskresensk Volost of Kostroma Gubernia. On February 14, 1918, a commune was set up in Tim Uyezd, Kursk Gubernia, etc.

The bulk of the members of the first agricultural artels and communes were poor peasants and former labourers. On December 1, 1918, there were 975 communes and 604 artels uniting 98,916 people who had 201,634 dessiatines of land at their disposal.

Following the unexplored road of socialist transformations, the peasants searched for the most efficient forms of collective economy. The commune was a form of economy in which all the means of production were pooled, where collective labour predominated, and the results of

this labour were equally divided among all the members. They completely rejected private ownership of the means of production. They shared the living quarters and all other structures, small implements, food, and so forth.

In the *artel*, on the other hand, besides the jointly-owned farm, the principal source of income, each member had his own plot of land, a house, small implements, and the like.

Practice showed that the second type of collective farming was best suited for the overwhelming majority of the peasants.

In addition to the communes and the *artels*, state agricultural enterprises (state farms), whose entire output was delivered to the state, were set up at some of the former landed estates. The people employed on these farms were paid wages by the state. This form of agricultural production proved to be very progressive. It was convenient and profitable for both the state and farm workers.

It has to be borne in mind that apart from socialist reconstruction in the countryside, which began in the very first year of Soviet rule, there was another pressing problem to solve—to ensure food for the population.

The already difficult food situation in the country had aggravated to the utmost by the spring of 1918. With the Ukraine, Volgaside, the Urals, Siberia and the Northern Caucasus temporarily occupied by the interventionists and the whiteguards, Soviet Russia had to do without the key food and raw-material regions.

At that time, according to available data, the Ukraine had 300 million poods of surplus grain, the North Caucasus—105 million poods, Western Siberia—145 million poods, etc.

There was also surplus grain in the hinterland which was not occupied by the enemy. But the kulaks sabotaged the sale of grain to the state and either let it rot in holes in the ground or sold it at exorbitant prices.

All told, according to estimates, the country's grain-producing regions had by the spring of 1918 no fewer than 655 million poods of grain left over from the 1917 harvest. At the same time, the industrial areas and the regions suffering from crop failure needed only 180 million poods.

And so while the country had more than enough grain, famine continued to spread.

In 1918 the food policy of Soviet Russia rested on the

state grain monopoly proclaimed in February 1918 in the Decree On the Socialisation of Land. Article 19 of the Decree said: "The trade in grain, both foreign and domestic, is the monopoly of the state."* This meant that the state alone had the right to sell or purchase it at fixed government prices. To stimulate grain sales by the peasants, industrial goods were sent to the villages.

This principle of the government food policy helped promote economic ties between town and country and strengthen the alliance of the working class and the peasantry. However, the provocations of the kulaks who possessed the bulk of the surplus grain forced the Soviet authorities to revise and further elaborate the food policy in the spring of 1918.

In May 1918 the Soviet Government promulgated a number of important acts proclaiming a food dictatorship and directing the working class and the village poor to curb the kulaks by force of arms.

A most important part in the mass movement for grain was played by workers' food detachments and Poor Peasants' Committees.

Formed of foremost workers from industrial centres under the centralised guidance of the People's Commissariat for Food, these food detachments were dispatched to the grain-producing gubernias.

Upon arriving in a village, the workers first established contact with the poor peasants and studied the situation. The poor peasants who actively supported the policy of the proletarian state were organised into village Poor Peasants' Committees.

Backed by the poor sections of the peasants, the food detachments conducted extensive explanatory work among the peasants, exposed rich peasants who hoarded large stocks of grain or sabotaged the fulfilment of instructions of government bodies, estimated the reserves of surplus grain and organised its delivery. Part of the laid-in grain was distributed among the poor peasants, part was dispatched directly to the enterprises which had commissioned the detachments, and part was delivered to government storehouses.

* *Sbornik dekretov 1917-1918 godov* (Collection of Decrees 1917-18), p. 12.

Thousands of workers joined the campaign for grain in the most difficult period of the revolution. Some sources put the total number of workers in the food detachments which operated in the villages from September to December 1918 at approximately 30,000.

The most important result of the activity of these detachments was the gradual elimination of famine—it ended at the close of 1918. During the first six months of that year 15 million poods of grain were laid in and another 30 million poods were stored up in the next 10 weeks (from August 15 to October 31).

The principal task of the Poor Peasants' Committees was further promotion of the socialist revolution in the countryside and mobilisation of the poor sections of the peasantry for the fight against the kulaks. They completed their task towards the end of 1918 and many of their experienced members were asked to stay behind and help strengthen the local Soviets.

The Soviet Government gave the maximum assistance to the agricultural areas during the civil war and foreign intervention.

From its funds the People's Commissariat for Agriculture delivered the following supplies to the peasant farms from 1918 to 1920:*

	1918	1920
Rye seeds (railway carriages)	250	574
Wheat seeds (poods)	360,000	844,000
Ploughs	32,000	34,000
Threshers	1,138	1,881
Scythes	104,000	1,252,000

These figures testify to the profound concern for the peasants' needs on the part of the socialist state and show that in the grim years of the war the state doubled its assistance to the countryside. Nevertheless, this aid could not tangibly increase agricultural production. The long war had bled the village white. There was an acute shortage of farm machines, cattle and labour. The rural areas

* P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR* (History of the National Economy of the U.S.S.R.), Moscow, 1956, p. 103.

annually required 77.6 million rubles worth of farm machines and all they could be given in 1920 was 4.3 million rubles forth.

The number of horses, the principal tractive force in agriculture at the time, decreased between 1916 and 1920 by 6 million. Millions of young able-bodied men were drafted into the army.

In the areas which had been occupied by the interventionists the state of agriculture was more distressing still. In Siberia, for example, the interventionists and Kolchak's troops, according to incomplete data, ruined 60,000 peasant households. No better was the situation in the Ukraine, Byelorussia and the North Caucasus.

All this caused vast damage to the productive forces in agriculture. Smaller tracts of land were put to the plough, grain yields declined and so did the stocks of animal produce. From 1917 to 1920 the cultivated area was reduced from 79.4 million to 63 million dessiatines.

The following table* shows the drop in the yields and harvests of the principal grain crops.

	Yields		Harvests	
	poods	per cent	million poods	per cent
1909-13 (average annual) .	50	100	3,850	100
1917	45	90	3,350	88
1920	35	70	2,082	54

Between 1918 and 1920 the number of horses fell from 31,505,000 to 25,411,000, cows from 49,965,000 to 39,100,000, sheep from 80,908,000 to 49,798,000 and pigs from 19,587,000 to 14,829,000.

The market capacity of agriculture dropped sharply due to the changes in the socio-economic structure of the countryside and the general devastation of the rural economy. The class of landed proprietors which before the revolution accounted for about 20 per cent of the marketable

* V. T. Chuntulov, *Istoriya narodnogo khozyaistva SSSR. Epokha sotsializma* (History of the National Economy of the U.S.S.R. Epoch of Socialism), Kiev, 1962, p. 73.

grain had been abolished, and the class of kulaks which previously yielded about 50 per cent had decreased in number.

In the meantime demand for marketable grain grew steadily. It was necessary to find a new form of procuring surplus agricultural produce that piled up in the villages and providing towns and the army with grain and industry with raw materials.

This new form was found. In view of the wartime situation and economic dislocation, the Council of People's Commissars on January 11, 1919, issued a decree introducing the surplus-requisitioning system.

Under this system, the government requisitioned all surplus grain and later other produce at fixed prices. The amount was determined by the central organs on the basis of the productive capacity of each gubernia and district.

On account of the inflation, however, the peasants actually received insignificant compensation for the produce turned over to the state.

Under these conditions an economic alliance between the proletariat and the peasants was out of the question. In those days their alliance was of a military-political nature. The working peasants bore hardships for the sake of victory over the common enemy—the interventionists and the whiteguards—for defeat would have deprived them of everything that the revolution and Soviet power had given them.

The kulaks, on the other hand, fiercely resisted the surplus-requisitioning system. They frequently burned stocks of grain, infected cattle with ravaging diseases, set fire to government and co-operative structures, and assassinated Party and government workers. The workers helped the peasants curb the kulaks. From 1918 to 1921 more than 80,000 workers united in 2,700 food detachments were sent to the countryside, and did a good job there.

The introduction of the surplus-requisitioning system helped the state to meet its immediate demands for grain. From the 1918 harvest the state procured 110 million poods of grain, the following year—220 million poods, and in 1920—over 285 million poods.

Centralisation of the procurement and sale of grain and other staple foods signified the folding up of trade and the introduction of the supply system.

The People's Commissariat for Food became the sole organ exercising jurisdiction over all matters of food supply.

Special ration cards were issued to regulate the sales of foodstuffs. Food rationing was graded according to class principle: a) manual workers, b) Soviet employees of all categories, and c) employees of other organisations and enterprises where labour was not exploited.

Red Army men and workers at key defence industry enterprises received special rations. The Red Army was supplied through the Chief Army and Navy Supply Administration, a special organ of the Food Commissariat, which enjoyed priority in receiving foodstuffs.

Workers at the biggest munition factories were included in a special list and also received bigger food rations.

The socialist state took the best possible care of children. In those difficult days it supplied free meals to almost 6 million youngsters. Hospitals and other medical institutions also received foodstuffs free of charge.

By enforcing extraordinary measures, the Party and the government surmounted the difficulties of the period but the situation remained tense. Low as they were, the rations were frequently cut down. Sometimes Moscow and Lenin-grad workers received as little as 50 grammes of bread a day.

Those difficulties, however, could not undermine the courage and endurance of the free Soviet people who were fighting for a bright future.

4. Economic Policy of the Socialist State

The victory of the socialist revolution and the conclusion of the Brest-Litovsk Peace with Germany enabled Soviet Russia to embark on socialist reconstruction.

But how was she to begin and what steps was she first to take along the difficult and unexplored road to socialism?

The completely ruined economy and its multiform nature made it all the more difficult to find a correct answer to this question.

The Soviet state had yet to work out a programme for laying the foundation of socialist economy.

A special place among the numerous documents dealing with the elaboration of this programme is occupied by Lenin's well-known pamphlet *The Immediate Tasks of the*

Soviet Government written at the end of March and the beginning of April 1918. In this work Lenin stressed the need to create new socialist relations of production in Russia.

"We, the Bolshevik Party," he wrote, "have *convinced* Russia. We have *won* Russia from the rich for the poor, from the exploiters for the working people. Now we must *administer* Russia."* The organisation of economic management demanded the immediate introduction of accounting and control over production and distribution of products throughout the country. This was the first step towards socialism, an extremely important condition for the organisation and management of production along socialist lines and an earnest of the victory in the fight against petty-bourgeois anarchy.

Pointing out that the struggle against the bourgeoisie had entered a new stage, Lenin wrote: "The centre of gravity is shifting to the organisation of accounting and control. Only in this way is it possible to consolidate all the economic achievements directed against capital, all the measures in nationalising individual branches of the national economy that we have carried out since October; and only in this way is it possible to prepare for the successful consummation of the struggle against the bourgeoisie, i.e., the complete consolidation of socialism."**

After substantiating the need to introduce the strictest country-wide accounting, Lenin spoke of "the second and equally essential material condition for introducing socialism, namely, raising the productivity of labour on a national scale."***

The realisation of all these extremely important problems primarily depended on the development of the fuel, iron and steel, engineering and chemical industries, that is, of large-scale industry which forms the material basis of socialism. At the same time, particular attention was focused on the application of modern techniques which would "lay the basis for an unprecedented progress of the productive forces."

Lenin devoted an important place to the organisation

* V. I. Lenin, *Collected Works*, Vol. 27, p. 242.

** Ibid., Vol. 27, p. 315.

*** Ibid., Vol. 27, p. 245.

and management of production in his plan for building the foundations of socialist economy. The strengthening of labour discipline and organisation of production were regarded as a "factor of economic upsurge".

The Immediate Tasks of the Soviet Government defined and substantiated the chief principle of economic management—that of democratic centralism. Far from rejecting it, this principle envisaged the absolute and strict "unity of will, which directs the joint labour of hundreds, thousands and tens of thousands of people".* What Lenin had in mind was one-man management of enterprises, and he decisively rebuffed all those who spread the ideas of petty-bourgeois arbitrariness, anarchy and bureaucracy. Accordingly, he devoted special attention to strengthening the dictatorship of the proletariat and raising the role of Soviet Government bodies in the organisation of socialist production.

The pamphlet has a chapter on socialist competition and the most important factors of its successful organisation—mass scale and publicity.

To raise the productivity of labour, Lenin said, it was necessary first to raise the educational and cultural level of the people. At that time, however, it was impossible to satisfy the country's needs in intellectuals who would be absolutely devoted to Soviet power. There was a great shortage of engineers and technicians. In these conditions Lenin considered it expedient widely to enlist bourgeois intellectuals and to pay them high salaries.

Simultaneously, it was considered essential to draw fresh thousands of foremost workers and peasants into creative work and to appoint organisers and directors of production from their midst.

Taking advantage of the lull in the fighting in the spring of 1918, and implementing Lenin's plan for the initial stage of socialist construction, the working people of the Soviet Republic accomplished a great deal in organising economic activity, developing production and improving administration in all branches of the economy. The breathing spell, however, was much too brief.

The plan for the rehabilitation and socialist development of the economy was thwarted by socialism's enemies—

* V. I. Lenin, *Collected Works*, Vol. 27, p. 268.

world imperialism and internal counter-revolution—who unleashed a war against the young socialist republic, making it mobilise all its forces and resources.

The Soviet economy accomplished this task only thanks to the policy known as War Communism, which introduced the following major economic measures.

Firstly, to concentrate all industrial production in the hands of the state, the government nationalised not only large-scale industry but middle-size and relatively small enterprises too. On November 20, 1920, it decreed the nationalisation of all enterprises employing over 10 workers, as well as all shops with a mechanical engine and five or more workers.

Secondly, the government enforced a food policy which fully conformed to the military situation in the country. This policy, providing for food requisitioning, was based on the class principle: the government took no foodstuffs from the poor peasants; the middle peasants had to give a moderate part of their surpluses, while the rich peasants had to surrender the greater part of their surplus stocks.

This policy naturally ignored the material incentives essential for the peasants to expand grain production. But the bulk of the peasants understood that the government had no other way out of the difficult situation and that this would only help defeat the enemy and safeguard the gains of the revolution.

Thirdly, in view of the distressing economic situation and the complete collapse of the financial system, the government sharply curtailed market relations and paid the working people in kind, by supplying them with necessities and providing free services (public utilities, transport facilities, education, medical treatment, etc.). In 1920 the monetary form of remuneration amounted to less than seven per cent of workers' real wages. The rest was covered by free rations, public services, rent, and so on.

Fourthly, to ensure industry, agriculture, transport and other branches of the economy with labour as quickly as possible, the Soviet Government introduced universal labour conscription which translated into practice the socialist principle: "He who does not work, neither shall he eat."

Let us take a closer look at the state of finances and money circulation in that difficult period.

In the sphere of finance, as in the whole socialist economy, the government concentrated on mobilising all means to defeat the enemy. During the foreign armed intervention and civil war the country's finances and money system were completely dislocated.

Immediately after the victory of the revolution the Soviet Government experienced a shortage of money. The money system had collapsed during the rule of the bourgeois Provisional Government.

To meet the growing demand for money, the Soviet Government had to start issuing money.

The following figures characterise the emission of banknotes during the civil war: on January 1, 1918, the amount of money in circulation came to 27,000 million rubles and by January 1, 1921, it had increased 43 times over to reach 1,169,000 million.

The bourgeois-nationalist "governments" set up by the interventionists in many parts of the country also issued money. As a result there were seven kinds of currency with 49 different types of banknotes ranging from 1 to 10,000 rubles.

Economists estimate that by the end of 1920 the actual value of paper money had dropped to $\frac{1}{13,000}$ part of 1913.

Money ceased to be a medium of commodity circulation. Its functions were assumed by grain, flour, salt, sugar, cotton cloth, and other scarce goods. As a result of the sharp decline in the importance of money it became no longer necessary to maintain banks and credit establishments, and so they were temporarily closed.

The disruption of Russia's financial system and the vast amount of money issued meant inflation. In socialist conditions, however, this process assumed a socio-economic character different from that in capitalist countries where it ruins the working people first and foremost, while the big capitalists usually wax rich on it.

In Soviet Russia the issue of money was directed against the exploiters who had accumulated money by plundering the people. The loss of their funds was another blow at the economic might of socialism's enemies.

The enforcement of all War Communism measures was dictated by the concrete conditions prevailing at the time. But this does not in the least imply that such a policy is

unavoidable in other countries entering the stage of socialist revolution.

The experience of some People's Democracies, for example, has vividly demonstrated that they did not need War Communism as a stage of economic policy in their transition from capitalism to socialism.

"It was the war and the ruin," Lenin wrote, "that forced us into War Communism. It was not, and could not be, a policy that corresponded to the economic tasks of the proletariat. It was a makeshift."*

This policy, however, alone made it possible for the socialist state to defeat the enemy and retain its achievements in that exceptionally difficult and responsible period of revolutionary development.

* V. I. Lenin, *Collected Works*, Vol. 32, p. 343.

Chapter V

ECONOMIC REHABILITATION (1921-25)

1. Transition to Peaceful Economic Upbuilding. New Economic Policy (NEP)

The victorious conclusion of the civil war and the rout of foreign armed intervention by the beginning of 1921 created the necessary conditions for the rehabilitation of the national economy. Having won a prolonged breathing-space, the Soviet people entered a new stage of economic construction.

There were five types of economy—patriarchal, small-commodity, private capitalist, state capitalist, socialist—in the country at the time. Although the leading role was played by the socialist sector, which retained key economic positions, the small-commodity sector, covering the bulk of the peasant households, remained predominant.

It was necessary to accomplish the difficult historical task of passing from capitalism to socialism, of building socialism. For this purpose it was essential to rehabilitate the war-ravaged economy and to surmount the extraordinary difficulties it involved.

Despite the failure of its armed intervention, the world bourgeoisie did not give up hopes of destroying the Soviet system, this time by economically throttling the Soviet state, and was also planning a new intervention.

The key issue was to preserve peace with the capitalist powers. Lenin wrote in February 1921: "What we prize most is peace and an opportunity to devote all our efforts to restoring our economy."*

* V. I. Lenin, *Collected Works*, Vol. 32, p. 115.

In accordance with Lenin's ideas about peaceful coexistence of countries with different socio-economic systems, the Soviet state took all possible steps to set up normal economic and political relations with capitalist countries.

In 1920 the Soviet Government concluded peace treaties with Estonia, Latvia and Lithuania where Soviet rule had been overthrown and bourgeois governments formed as a result of imperialist intrigues. It signed a treaty with Finland which had been granted independence by the Soviet Republic. A year later, in March 1921, it signed a similar treaty with Poland and a trade agreement with Great Britain. Soon after Soviet Russia concluded provisional trade agreements with Germany, Italy, Norway, Austria, Sweden and Czechoslovakia. The same year agreements were concluded with several Eastern countries (Iran, Afghanistan, Turkey and Mongolia).

These first successes of the peace policy of the Soviet state testified to its growing role in international affairs.

The internal situation in Soviet Russia was extremely difficult at the beginning of the rehabilitation period. Her economy was totally wrecked as a result of the four-year imperialist war and three years of the civil war and foreign armed intervention. Economically, she had been thrown back to the level of tsarist Russia of the mid-19th century.

The fixed assets of industry had not been renewed for many years and the output of the engineering industry, especially for non-military purposes, had sharply declined. The interventionists had completely crippled the railways and inland navigation.

The number of workers in industry had decreased from 2.4 million in 1913 to 1.27 million in 1920, and there was a sharp drop in the productivity of labour in all branches of the economy.

Agriculture, too, had suffered badly from the protracted war.

Such was the state of the economy when the civil war ended and foreign interventionists were routed.

The economic rehabilitation of the country was impeded principally by the extremely low level of her economy.

But there were other difficulties engendered by the growing economic and political rift between town and country, between the working class and the working peasantry.

In the years of the civil war and foreign intervention the

peasants had put up with War Communism, the surplus-requisitioning system and the shortage of industrial goods. They knew it was necessary to exert every effort to smash the interventionists and the whiteguards who were the common enemies of both themselves and the working class.

As the struggle drew to a close, however, the peasants began to voice dissatisfaction with the policy of War Communism which did not provide material incentives for developing agriculture. The peasants pressed for the abolition of the compulsory deliveries of food and grain monopoly and demanded the development of trade between town and country.

Speaking of the difficulties of rehabilitation, one should mention the relatively significant changes in the composition of the working class, the class that was the leader of the revolution, the class that established its dictatorship in the country.

The long wars and declining production had considerably depleted the ranks of the working class. Many workers went to work in the villages or in the handicraft industry. Unemployment was growing in towns.

"Our proletariat," Lenin said at the Tenth Congress of the Communist Party, "has been largely declassed; the terrible crises and the closing down of the factories have compelled people to flee from starvation. The workers have simply abandoned their factories; they have had to settle down in the country and have ceased to be workers."*

In these conditions the necessity for radically revising the economic policy of the Party and the Government became obvious. What had been possible and indispensable in the conditions of the civil war and foreign armed intervention became impossible, unnecessary and harmful in the conditions of transition to peaceful economy. The policy of War Communism had completely outlived itself.

It was imperative to find new grounds for economic co-operation between the working class and the peasants, new forms of maintaining the alliance between these two principal classes of the new society. Accordingly, in March 1921 the Tenth Party Congress passed the historic decision to adopt a New Economic Policy.

The decision said: "To ensure correct and undisturbed

* V. I. Lenin, *Collected Works*, Vol. 32, p. 199.

management of the economy through granting the farmers greater freedom in using their economic resources and to strengthen the peasant economy and raise its output and also correctly define the farmers' commitments to the state, the surplus-requisitioning system as a form of government procurements of food, raw materials and fodder will be supplanted by a tax in kind.”*

On March 21, 1921, the All-Russia Central Executive Committee adopted a decree on the substitution of the surplus-requisitioning system by a tax in kind. After that came other laws which determined the size of the tax in kind and how it should be levied. For 1921-22 the size was set at 240 million poods instead of the 423 million poods previously provided for by the surplus-requisitioning system. In gubernias where peasants had delivered their quotas the government renounced its monopoly on grain and introduced free trade in all agricultural products.

The necessity and expediency of switching to NEP as an economic policy in the period of transition from capitalism to socialism were substantiated by Lenin in a number of articles written between 1917 and 1921, and in his well-known article “The Tax in Kind” which he wrote in April 1921.

This work thoroughly characterised NEP and disclosed its content. It showed the substance and significance of the tax in kind, substantiated the need to initiate economic rehabilitation by boosting agriculture and stressed the importance of heavy industry and electrification of the country for the creation of the material basis of socialism. “The Tax in Kind” defined the role played by small producers' co-operatives in socialist construction, substantiated the economic essence and the importance of commodity circulation between agriculture and industry, outlined how money should be used in socialist society, and treated of a number of other major specific economic problems in the transitional period.

The principal purpose of NEP, as Lenin saw it, was to consolidate the economic and political alliance between the working class and the peasants, draw the latter into social-

* *KPSS v rezolyutsiyakh i resheniyakh syezdov, konferentsii i plenumov Ts. K.* (Resolutions and Decisions of the C.P.S.U. Congresses, Conferences, and C.C. Plenary Meetings), Part I, 1954, p. 563.

ist construction, rehabilitate the ruined economy as swiftly as possible by the effort of these two labouring classes, and then build socialist economy.

At the same time, the introduction of the tax in kind entailed the reorganisation of the entire economy.

In exchange for surplus products the peasants demanded manufactured goods. But the government was experiencing a shortage of these goods and was forced to resort to the assistance of private capital to speed up the rehabilitation of industry.

In order to expand economic ties between agriculture and industry and to build up stocks of goods in country and town it was necessary considerably to liven up and expand trade. The state, however, was then in no position to ensure a stable commodity exchange with the means at its disposal. Hence, it had to allow private capital to operate in this sphere and to reconcile itself to all the negative consequences this entailed.

The introduction of the New Economic Policy required the revival and improvement of the money circulation system and the reorganisation of state enterprises on the basis of cost-accounting, revision of the wages system, etc.

It has to be borne in mind that penetration of private capital into the sphere of production and trade was restricted all along, and it was not permitted to assume command positions in the economy. Private capital was debarred from large-scale industry, transport, foreign trade and the banking system.

With the commanding heights in economy and the tax and credit systems in its hands, the proletarian state held the growth of capitalist elements in check and then abolished them altogether.

The state used private capital as an ancillary means for bringing the country out of ruin with all possible speed and for laying the foundation of the socialist economy.

The adoption of NEP implied admission of capitalist elements into the economy and in this sense may be regarded as a retreat. But this retreat was planned, orderly and brief. A year later, in March 1922, Lenin said at the Eleventh Party Congress:

“For a year we have been retreating. On behalf of the Party we must now call a halt. The purpose pursued by the retreat has been achieved. This period is drawing, or

has drawn, to a close. We now have a different objective, that of regrouping our forces.”*

Enforcing NEP, the Soviet Government kept vigilant watch over the correlation between the socialist and the capitalist elements, ensuring the growth of the former and restricting and ousting the latter.

Centralised planning, control and accounting were concentrated in the hands of the State Planning Commission (Gosplan) set up in February 1921. The Statute of the State Planning Commission pointed out that it was established “for the purpose of working out a single state economic plan on the basis of the plan for the electrification of the country adopted at the Eighth Congress of Soviets and for supervising the fulfilment of this plan”.**

The State Planning Commission was to strengthen the principle of planning in industrial management on a country-wide scale. Stressing the significance of the principle of planning in the period of NEP, Lenin wrote that “the New Economic Policy *does not change* the single state economic plan and *does not transcend* its limits, but changes the approach to its realisation.”***

The peoples of the Soviet Republic were becoming increasingly aware of the need to unite in a single state if they were to build socialism and defend themselves against the encroachments of the imperialists.

In December 1917, following the establishment of the Russian Soviet Federative Socialist Republic (R.S.F.S.R.), the Ukraine proclaimed itself a Soviet Socialist Republic, and in January 1919 the Byelorussian S.S.R. was formed. In 1920 and at the beginning of 1921 the peoples of Transcaucasia overthrew the rule of the Dashnaks in Armenia, the Mussavatists in Azerbaijan and the Mensheviks in Georgia, and established the Transcaucasian Soviet Socialist Republic. In Central Asia, apart from the Turkestan Autonomous Republic, there were the Bukhara and Khorezm People’s Soviet Republics.

Thus in 1921, besides the R.S.F.S.R., there were several Soviet republics on the territory of what is now the Soviet Union. The fraternal Soviet republics set up stable economic and political relations with each other.

* V. I. Lenin, *Collected Works*, Vol. 33, p. 280.

** *Sobraniye Uzakonenii* (Collection of Laws), 1921, No. 17, p. 106.

*** V. I. Lenin, *Collected Works*, 5th Russ. ed., Vol. 54, p. 101.

In December 1922 the First All-Union Congress of Soviets decided to unite the Soviet republics in the Union of Soviet Socialist Republics.

The rehabilitation period was marked by substantial and rapid development of the economy whose key branches had by the end of 1925 approached the 1913 level of output and some even surpassed it. In these years the methods of industrial management were modified, the Soviet government machinery developed and strengthened, and the U.S.S.R., a mighty united socialist state, formed.

2. Recovery in Agriculture

One of the major tasks the Soviet people had to fulfil during the NEP period was to rehabilitate agriculture. Russia's weak rural economy had suffered terribly in the First World War and the civil war. The shortage of labour in the countryside, the destruction of draught animals and productive livestock, lack of farm machines and other unfavourable factors had caused agricultural production to decline sharply towards the end of the civil war.

In 1920 the total crop area was reduced by 25 per cent as compared with 1913, and the area planted to industrial crops had decreased even more (flax fibre by 35 per cent, sugar beet by 70 per cent, and so forth). Grain output had declined by 50 per cent and the productive livestock population by 60 per cent.

Russian agriculture was a conglomeration of small isolated farms possessing obsolete farm machines. Moreover, the process of fragmentation in the countryside was continuing. To top it all, there were years during the rehabilitation period when climatic conditions were extremely adverse. In 1921, at the very beginning of rehabilitation, the country was stricken by an extensive drought which ravaged the Volgaside, southern Urals, the Caucasus and southern Russia—an area with a population of 30 million. By the close of 1921 the number of starving people had reached the enormous figure of 23,227,000.* There was another crop failure in 1924.

The government undertook vigorous measures to overcome the famine: it exempted the peasants in the stricken

* *Bednota* (The Poor), December 24, 1921.

areas from tax, allocated money and food for the suffering, organised public catering, evacuated part of the population from the famine-gripped gubernias, etc. It sent seeds and helped the peasants till their land. As a result, the percentage of peasant households which did not cultivate land dropped from 8.1 in 1920 to 6.7 in 1922.

The area sown to crops, which in 1920 amounted to 80 million dessiatines, began to grow in 1921, as shown in the table below (in hectares).*

	1921	1925
Total crop area (million) . .	90.3	104.3
Including grain (million) . .	78.3	87.3
cotton (thousand) . .	99.1	591.0
sugar beet (thousand) . .	220.9	533.0

We thus see that by 1925 the total sown area had almost reached the pre-war level (105 million hectares) and increased by 14 million hectares as compared with 1921. The cultivated area increased primarily as a result of the expansion of grain fields, although the area under industrial crops grew much more rapidly (sixfold in the case of cotton, for example). This was due to the sharp rise in the demand for industrial crops—raw materials for the light and food industries which were being restored at a rapid pace.

The growth of the sown area alone does not mean recovery of agriculture. The chief factor, productivity, at the time was low because of the impoverished soil, absolute lack of modern farm machines and the preponderance of small private peasant farms.

The table below shows the growth of gross agricultural output (in million centners).**

	1921	1922	1923	1924	1925
All grain crops . . .	422.9	562.7	573.8	514.0	776.8
Cotton	0.2	0.2	1.4	3.4	5.4
Sugar-beet	4.2	18.9	28.4	34.9	90.7

* *Sotsialisticheskoye stroitelstvo SSSR* (Socialist Construction in the U.S.S.R.), Moscow, 1936, p. 280.

** *Statisticheskyy spravochnik za 1932 god* (1932 Statistical Handbook), p. 121.

The restoration of the livestock population is characterised by the following figures (in million head).*

	1916	1922	1925
Horses	35.8	24.1	27.1
Cows	60.6	45.8	62.1
Sheep and goats	121.2	91.1	122.9
Pigs	20.9	12.9	21.5

With the exception of horses, the livestock population had thus reached the pre-war level by 1925.

During the rehabilitation period a huge effort was made to supply agriculture with farm machines and implements. The rapidly recovering industry was able steadily to increase the output of farm machines and to deliver them to the countryside. True, the production of tractors was still in its embryo and no combines at all were manufactured, but considerable headway was made in the production of other agricultural machinery, as can be seen from the following table.**

	1921	1925
Ploughs	100,500	633,200
Harrows	6,200	174,500
Threshers	1,700	45,000
Winnowing machines and graders	2,000	62,500
Harvesters and mowers	5,500	59,600

The first attempts to manufacture tractors were made in 1918, but their production was organised only several years later, in 1923, at the Krasny Putilovets factory in Petrograd. All told, there were 22,326 tractors operating in the countryside in 1923-26, and 90 per cent of them had been imported.

The assistance rendered by the Soviet Government to agriculture in the period of rehabilitation may be judged

* *Sotsialisticheskoye stroitelstvo SSSR*, p. 354.

** *Statistichesky spravochnik za 1932 god*, p. 6.

by the enormous sums it expended for this purpose. One of the most efficient forms of state aid was the extension of credits through the Central Agricultural Bank. The following table shows the amount of credit extended by this Bank.*

	As of Oct. 1, 1923	As of Oct. 1, 1924	As of Oct. 1, 1925
Total credits (million rubles)	8.1	237.7	657.6
Including credits for production purposes	3.5	212.2	542.6
financing sales	4.6	25.5	115.0

In these two years the total sum of the loans granted the peasants by the Central Agricultural Bank increased 81 times over, from 8.1 million to 657.6 million rubles.

The bulk was allocated to assist the poor and the middle peasants. This demonstrated the government's class approach to rendering aid to the peasants.

In equal measure this applied to supplying the countryside with everything necessary to increase output, and to taxation.

In line with the initial decree, the tax in kind was regarded as partial deduction from agricultural output, with due account of the peasants' property status, the size of the harvest, the number of mouths to be fed, and other factors determining the position of the household. The poor peasants and those middle peasants who possessed small holdings were fully exempt from taxation.

Beginning with 1923 the government began to introduce a single agricultural tax which subsequently replaced the numerous taxes in kind then in existence. The new tax was paid partly in grain and partly in money. After the monetary reform in 1924, which strengthened the money system, the tax was paid exclusively in cash.

The above measures, carried out in conformity with the New Economic Policy, facilitated the rehabilitation of agriculture, encouraged the personal initiative of the

* V. P. Dyachenko, *Finansovaya pomoshch Sovetskogo gosudarstva kolkhoznomu stroyu* (Financial Assistance of the Soviet Government to the Collective-Farm System). See *Kolkhoznoye stroitelstvo v SSSR* (Collective-Farm Construction in the U.S.S.R.), Moscow, 1951, p. 229.

peasants and heightened the producers' material interest in their labour.

These measures, however, were far from adequate to ensure the victory of the socialist forms of economy in the countryside. This could be achieved only through a radical reorganisation of small individual economies by gradually uniting them into large mechanised co-operative farms. The goal, therefore, was from the very start to promote in every possible way the organisation of the simplest forms of co-operatives: marketing, credit, consumers' and later on producers' co-operatives (collective farms).

The table below illustrates the numerical growth of agricultural co-operative societies in the rehabilitation period.*

	1920	1921	1922	1923	1924	1925
Total number of agricultural co-operatives	12,850	24,060	22,021	31,187	37,872	54,813
Including producers' co-operatives	10,521	16,628	15,440	14,002	13,523	15,178

In 1925 agricultural co-operatives of all types united 6.6 million peasant households. The most numerous were the marketing and consumers' co-operatives.

Producers' co-operatives were then organised in the form of agricultural communes, agricultural artels and associations for the joint tilling of the land.

The ratio between these forms of co-operation in 1925 may be judged by the following figures: there were 1,829 communes, 8,802 artels and 4,547 associations.

As for their social composition, the members of producers' co-operatives were poor (25 per cent) and middle (60 per cent) peasants. Peasants who had one horse or none made up 84 per cent of all co-operative members.

The state assisted the first collective farms as best it could. They were the first to receive farm machines, fertiliser, seeds, pedigree cattle and credits. Some of them were well-organised, efficient farms. In the North Caucasus, for example, the communes took in 121 poods of rye and

* *Itogi desyatiletiya Sovetskoi vlasti v Tsifrakh 1917-1927* (Decade of Soviet Rule in Figures, 1917-1927), p. 421.

100.3 poods of wheat per dessiatine, whereas at individual farms the corresponding figures were 82 and 84.9 poods.

On the whole, however, the first collective farms of the period had yet to prove their worth. They were short of farm machinery, farming technique was low and discipline and organisation of labour left much to be desired. There were also considerable fluctuations in their membership and many collective farms disintegrated only to be formed again. The kulaks, who had penetrated into some collective farms, did everything to disorganise them and embezzled public funds.

The process of establishment and consolidation of collective farms became more intensive in the ensuing period.

Alongside the collective farms there appeared many state farms which were large-scale socialist agricultural enterprises. The state farms supplied the state with large amounts of foodstuffs and agricultural raw materials. Moreover, they performed the important job of popularising the superiority of large-scale economy over small farms and the advantages of modern farm techniques over outdated peasant implements, and spread ideas of collectivism among the peasant masses. Their share in agricultural production was nevertheless insignificant. In 1925 there were 3,382 state farms but their sown area added up to only 850,000 dessiatines.

3. Rehabilitation of Industry

The rehabilitation of agriculture was a task of utmost importance, for it alone could bring an end to famine and ensure conditions for readjusting the economic activity.

Nevertheless, it was on the restoration of industry, the material basis of socialism, that the government and public bodies concentrated their attention. "Without it," Lenin wrote, "no real socialist foundation for our economic life is possible."*

This, however, required tremendous effort, and for the following reasons: firstly, the bulk of the fixed assets were wrecked; secondly, the raw-material and food base was extremely weak, and, thirdly, there was a shortage of

* V. I. Lenin, *Collected Works*, Vol. 32, p. 408.

workers and intellectuals. Qualitatively, the composition of the working class had also changed for the worse: many experienced workers had been killed in the First World War or in the civil war, or had gone to live in the villages, and their place was taken by peasants who lacked the proletarian consciousness of regular workers.

All efforts and means were focused on the rehabilitation of the key industries and the biggest enterprises. As for the small and some of the medium-size enterprises (particularly Group B branches), they were either temporarily closed or leased. The leases and concessions granted to foreign capital paved the way for state capitalism. But it should be said that it did not become widespread, because, firstly, private entrepreneurs (especially foreign concessionaries) had no desire honestly to fulfil their obligations and modernise enterprises, which was one of the principal reasons why the government leased them, and, secondly, rapid and successful restoration work soon made it possible to get along without private capital.

The policy of the rehabilitation of large-scale industry led to an unprecedented growth of production. The annual rates are illustrated by the following figures: in 1921 industrial production increased by 42.1 per cent, in 1922 by 30.7 per cent, in 1923 by 52.9 per cent, in 1924 by 16.4 per cent and in 1925 by 66.1 per cent.*

The average annual increase in industrial output between 1920 and 1925 was approximately 41 per cent. In 1922 and 1924 it was somewhat lower. This was due to the crop failure of 1921 and the difficulties in the sale of agricultural and industrial products which arose in the autumn of 1923. In all other years of the rehabilitation period the rates of production were very high.

The socialist mode of production proved to be superior to all previously known ones. The high rates of development were also due to the specific conditions of the period. The reason for the growth of production was less the construction of new factories (although they were being built) than the restoration of the old industrial enterprises, and it is easier to rebuild a wrecked factory than to erect a new one.

* *Strany sotsializma i kapitalizma v tsifrakh* (Socialist and Capitalist Countries in Figures), Moscow, 1957, p. 56.

Mention must be made of the enormous enthusiasm of the working people who for the first time in their life were working for themselves and their socialist state. Their valiant efforts made it possible quickly to restore the ruined industry.

The *subbotniks* and *voskresniks*, forms of mass voluntary participation of the people in socialist construction which were first organised in the early months of Soviet rule, became still more widespread in the rehabilitation period.

Over 83,000 people took part in five *voskresniks* in Moscow in January 1921. The same year about 1,500 *subbotniks*, in which 175,000 people took part, were held at the Petrograd railway junction. In April 1921, 500 *voskresniks* were organised at the Yuzovka mines (now Donetsk), in which 70,000 people participated. Some 240,000 people worked in the *subbotniks* and *voskresniks* organised in Sormovo from January to November 15, 1921.*

In February 1921 the All-Russia Central Executive Committee instituted the Order of the Red Banner of Labour. This was the highest order awarded to workers and enterprises for their achievements.

The table below shows the development of industry in 1920-25.**

Year	Total industrial output	In 1926/27 prices (million rubles)		Fixed assets	Average annual number of workers
		Production of means of production	Production of consumer goods		
1913	10,251	4,177	6,074	6,820	2,592,000
1920	1,410	665	745	8,090	—
1921	2,004	876	1,128	7,930	1,298,000
1922	2,619	1,173	1,446	7,935	1,199,000
1923	4,005	1,925	2,080	7,969	1,480,000
1924	4,660	2,109	2,551	8,016	1,698,000
1925	7,739	3,356	4,383	8,105	2,119,000

* See SSSR *v period vosstanovleniya narodnogo khozyaistva 1921-1925* (U.S.S.R. in the Period of Economic Rehabilitation 1921-1925), Moscow, 1955, p. 165.

** P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR* (History of the National Economy of the U.S.S.R.), Vol. III, Moscow, 1956, p. 165.

Generally speaking, industrial production in 1925 was 75.5 per cent of the 1913 level, of which the output of the means of production was 80.3 per cent, that of consumer goods 72.2 per cent. In some key branches, the production indices were considerably higher than the average indices for the whole of industry. For example, the output of electric power in the course of the implementation of the GOELRO plan was in 1925 more than 41 per cent greater than in 1913, and amounted to 2,925 million kwh (1,949 million kwh in 1913). Engineering industry output was 13 per cent greater (697 million rubles in 1913 and 788 million rubles in 1925). The coal industry produced 600,000 tons more of anthracite than in 1913.

The table below shows the output figures (in million tons) of the key branches of the mining and metallurgical industry.*

	1913	1920	1921	1922	1923	1924	1925
Coal	29.1	8.7	9.5	11.3	12.7	16.3	16.5
Oil	9.2	3.8	3.8	4.7	5.3	6.1	7.1
Iron ore	9.2	0.2	0.1	0.5	1.0	2.1	3.3
Pig iron	4.2	0.1	0.1	0.2	0.3	0.7	1.3

We thus see that the key branches of the heavy industry, particularly iron ore extraction and metallurgy, were still considerably behind in their development. This was due to worn-out equipment, shortage of fuel and qualified workers, and low productivity of labour.

In the last years of the period the rehabilitation rates of heavy industry increased somewhat following the construction of new enterprises and installation of new equipment. Meanwhile, the restoration of the railway system depended wholly on the rehabilitation of the fuel and the iron and steel industries. The restoration of the railway facilities, heavily damaged during the war, was still unfinished at the

* *Narodnoye khozyaistvo SSSR v 1958 godu* (U.S.S.R. National Economy in 1958), Gosstatizdat, 1959, pp. 188, 201, 208. Figures for iron-ore output after 1921 are given for 1922/33, 1923/24 and 1925/26 fiscal years (see P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR*) (History of the National Economy of the U.S.S.R.), Vol. III, p. 167.

end of 1925. The difficulties met with were further aggravated by the fuel shortage which became particularly acute in the spring of 1921. For this reason several minor lines were closed to traffic and freightage curtailed.

With the rehabilitation of the heavy industry there appeared possibilities for expanding the production of the rolling stock and resuming and completing the construction of the new railways begun before the war. In 1925 the overall length of railway lines had surpassed the pre-war figure (58,500 kilometres in 1913 and 74,500 kilometres in 1925). The freight turnover, however, was only 80 per cent of the pre-war level.

As for river shipments, their volume was about 50 per cent of the 1913 figure.*

The light and the food industries were restored at a much faster pace. By the close of 1925 most of the enterprises had caught up with and even surpassed the pre-war level of production.

Industrial rehabilitation, as we have already pointed out, was conducted on the basis of the New Economic Policy which provided for the employment of private capital. Nevertheless, the government restricted the participation of private capital in industrial development. As a result, its share declined from year to year, and the socialist sector steadily gained ground. This in equal measure applied to all branches of industry, and primarily to its key enterprises, where the share of private capital was in 1925 reduced to the minimum.

Of the 12,734 heavy industry enterprises operating in 1926-27, less than 13 per cent were private factories or concessions, and their total output came to only 2.2 per cent of gross heavy industry production.

The share of the private capitalist sector was bigger in the light and food industries. In 1926-27 private capitalists owned 19.9 per cent of all flour mills, 9.6 per cent of the starch and treacle factories, 29.2 per cent of the tobacco factories and as much as 35.8 per cent of the tanneries. The private capitalist sector was ousted from these branches of industry at a later period.

* *Istoriya narodnogo khozyaistva SSSR. Kurs lektsii* (Course of Lectures on the History of the National Economy of the U.S.S.R.), Moscow, 1960, pp. 491-92.

The successful restoration of industry was accompanied by the numerical growth of the working class and the steady and considerable rise in labour productivity which in its turn was an earnest of rapid progress of rehabilitation work.

Beginning with the 1922/23 financial year, the number of workers began to grow although unemployment had not yet been fully wiped out, and more than 500,000 jobless were registered with labour exchanges in 52 towns.*

One of the most important factors of industrial development was the rising productivity of labour.

In 1920 average annual output per worker was estimated at 669 pre-war rubles; in 1923 it came to 1,637 rubles and in the 1925/26 financial year to 2,437 pre-war rubles.**

A very important issue in those conditions was the correlation of the workers' wages and the productivity of labour. When this correlation is normal, that is, when labour productivity develops faster, it becomes possible to expand production. In the rehabilitation period, however, the opposite was frequently the case. From October 1922 to September 1923, for example, production increased 120.2 per cent and the wages 168.2 per cent. An analogous situation was observed in the textile, metalworking, tanning, chemical and certain other industries. The question of remuneration of labour was all the more complicated by the inflation, devaluation of the ruble and the rise of commodity prices.

In these conditions, to ensure the stability and the increase of real wages, industrial and office workers were paid in kind. In general, wages rose steadily in the period of economic restoration.

In the 1925/26 financial year they were 34 per cent above those in 1913. Moreover, the workers benefited considerably by state expenditure for social and cultural requirements, medical service, annual paid holidays, etc. All this testifies to the rise of the people's material and cultural level already in the first years of Soviet rule.

* Central State Archives of the October Revolution, Moscow.

** P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR*, Vol. III, p. 170.

4. Trade as the Basic Link of Economic Policy

The New Economic Policy stimulated the development of productive forces both in town and country. The introduction of the tax in kind led to the accumulation of stocks of agricultural products in the countryside, while the rehabilitation of industry and the lease of part of industrial enterprises to private capital resulted in the accumulation of manufactured goods in towns. Organisation of trade was to be the next step in the establishment of efficient economic links between town and country. With the introduction of the New Economic Policy trade acquired primary importance. "Trade," Lenin said, "is the 'link' in the historical chain of events, in the transitional forms of our socialist construction in 1921-22, which we, the proletarian government, we, the ruling Communist Party, *'must grasp with all our might'*. If we 'grasp' this link firmly enough *now* we shall certainly control the *whole* chain in the very near future. If we do not, we shall not control the whole chain, we shall not create the foundation for socialist social and economic relations."* Accordingly, the government took measures to speed up the all-round development of trade.

Government internal trade bodies were reorganised. Initially, all trade in the country was controlled by the Supreme Economic Council and the People's Commissariat for Food. In 1921 their trade boards were reorganised. In May 1922 a special commission was set up under the Council of Labour and Defence to regulate domestic trade, and in 1924 this commission was reorganised into the independent People's Commissariat for Internal Trade.

In the rehabilitation period the government searched for ways of organising the trade apparatus so that it would fit in with the new socialist conditions. It was an extremely difficult matter because the shortage of goods and circulating assets was aggravated by the rapid depreciation of currency (in the initial period of NEP), by the absence of ready forms of trade, and by lack of experienced personnel.

At that time, the network of trade enterprises consisted of state, co-operative and private establishments.

State trading establishments included specialised trading organisations, joint-stock companies and commercial

* V. I. Lenin, *Collected Works*, Vol. 33, p. 113.

syndicates. Co-operative associations had the right to purchase, lay in and sell both agricultural produce and manufactured goods. They bore the main responsibility for supplying the urban and rural population with necessities. In 1925 there were 20,000 co-operative societies and 34,000 co-operative stores. The total volume of co-operative trade in the 1925/26 financial year added up to 7 million rubles. Private trade rapidly expanded in that period, too.

The government naturally did not surrender key positions in trade to private capital, which was completely debarred from foreign trade; its activities were restricted in the main to retail trade. In the wholesale sphere, private capital accounted for only 5 per cent of the commodity turnover. In retail trade there were times when its share in the total volume of turnover reached 75 per cent.

Stock exchanges and fairs in which state, co-operative and private commercial organisations participated played an important role in organising commodity circulation.

Foreign trade, which was a state monopoly, considerably strengthened its positions in the rehabilitation period.

By 1925 the Commissariat for Foreign Trade had signed trade agreements with almost all European countries and many other states.

Foreign trade then had two major objectives: "a) to assist and stimulate to the maximum the development of the country's productive forces, and b) to protect the rising socialist economy against the economic offensive of the capitalist powers."*

The external and internal conditions, however, were not conducive to large-scale foreign trade and its turnover (exports + imports) in the 1925/26 financial year was less than 1,000 million rubles in pre-war prices, whereas in 1913 it amounted to approximately 3,000 million. Towards the end of the rehabilitation period a favourable trade balance was attained in foreign trade, and the share of machinery and equipment had increased in industrial imports.

During the period under review the Soviet Government achieved the following results in trade:

- 1) It had worked out forms of both domestic and foreign

* *KPSS v rezolyutsiyakh...* (C.P.S.U. in Resolutions...), Part II, Moscow, 1954, p. 174.

trade and organised the training of personnel to promote and strengthen this important link in the economic life of the socialist state.

2) It had increased trade turnover. Utilising all forms of trade, it had in the main organised trade between town and country. The total value of commodity circulation in the country amounted to 6,045 million rubles in 1924, to 8,980 million rubles in 1925, and to 12,828 million rubles in 1926.

3) It was successfully ousting private capital from trade. The following figures illustrate the growing share of state and co-operative trade in the total volume of internal commodity turnover: in 1924 it accounted for 47.3 per cent, in 1925, for 57 per cent, in 1926, for 59.9 per cent and in 1927, for 65.4 per cent.*

Private capital was completely driven out of trade in the early 1930s.

An important and extremely difficult problem in the rehabilitation period, one connected with the establishment of trade ties between town and country, was that of regulating prices. Its solution depended on the correct interpretation and efficient application of the law of value objectively operating in conditions in which public ownership of the means of production predominated.

A distinctive feature of the period was that the level of development of productive forces differed sharply in various branches of the economy, and just as different were the extent of damage caused by the war to agriculture and industry and the rates of their rehabilitation.

All this frequently caused fluctuations in prices, and at times produced a great discrepancy in the prices of manufactured goods and agricultural produce. This discrepancy became particularly pronounced in the autumn of 1923, when the prices of manufactured goods were extremely high and those of agricultural products low.

The discrepancy in prices created serious difficulties for the peasants, and even precipitated a crisis in the sales of manufactured commodities, although there was an acute need for them in the villages.

Extremely high circulation costs were the main cause

* *Sovetskaya trgovlya. Statistichesky sbornik* (Soviet Trade. Book of Statistics), Gosstatizdat, Moscow, 1956, p. 14.

of inflation of the prices of manufactured goods. In the first years of NEP, when private capital played a major role in trade, circulation costs throughout the U.S.S.R. averaged 25 per cent of the value of retail trade.

The government took urgent measures to deal with the abnormal situation. It cut the prices of manufactured goods, reduced the excise duty on salt, sugar, kerosene and other commodities by 20 to 50 per cent, lowered railway tariffs by 25-30 per cent, limited the level of extra charges in trade, fixed the ultimate prices of the goods most in demand, fixed standard prices, which were compulsory for the private sector too, on matches, cigarettes, tea and other articles.

From October 1, 1923, to April 1, 1925, the prices of metal, textile, leather and chemical goods and foodstuffs were lowered by 23, 35, 40, 31 and 29 per cent respectively.*

These measures not only liquidated the crisis but considerably improved the material well-being of the working people and strengthened the alliance between the working class and the peasantry.

5. Normalisation of Money Circulation and Finances

The civil war and foreign military intervention prevented the implementation of the monetary reform whose draft was worked out by Lenin in 1918. In conditions of War Communism it was necessary to concentrate all the material resources of the country in the hands of the state, to enforce the surplus-requisitioning system and organise food rationing. Hardly any goods were sold on the market in that period.

But even during War Communism the financial system acted as a powerful lever for mobilising the country's material resources.

Budget revenues were small and more money was issued to cover the expenditures.

In 1920 the budget deficit reached the enormous sum of 1,055,000 million rubles—44 times the amount in 1918.

* *Trety syezd Sovetov Soyuz SSR. Stenografichesky otchet* (Third Congress of Soviets of the U.S.S.R. Stenographic Report), Moscow, 1925, p. 187.

The colossal growth of the amount of paper money in circulation at a time when commodity turnover in the country had sharply declined caused substantial devaluation of money and led to the introduction of barter trade.

The issue of money during the civil war was a justifiable measure. It served to maintain relations between town and countryside, helped the government mobilise material resources and was instrumental in depreciating and expropriating the capitals of the bourgeoisie.

Following the transition to peaceful construction, when economic rehabilitation and the promotion of commodity circulation were promoted to first place, the unstable position of the monetary system could no longer be tolerated.

However, there were two reasons which prevented the enforcement of the monetary reform.

The first was the enormous budget deficit, the second was the famine which made prices soar and depreciated the currency. The measures that were undertaken to improve the finances were restricted to curtailing and then stopping the emission of money.

By the end of 1922 the situation had already changed for the better. The successes in economic rehabilitation, expanding commodity circulation and accumulation of currency reserves made it possible to begin issuing a stable currency.

In conformity with the law of October 11, 1922, the state began issuing ten-ruble banknotes (*chervontsi*) each of which was equal in value to approximately 7.74 grammes of gold.

Unlike the *sovznaki* (other Soviet banknotes), the *chervontsi* were not issued to cover the budget deficit but to ensure normal commodity circulation.

The stability of the *chervontsi* was guaranteed by the State Bank: 25 per cent of its value was accounted for by precious metals and stable foreign currency, and 75 per cent by easily-marketable commodities, bills of exchange and other promissory notes.

The emission of the *chervontsi* as the country's stable currency continued to grow. By February 1, 1923, about 2 million rubles worth of *chervontsi* were issued; by August 1 the same year, this figure had risen to 13.5 million rubles and by January 1, 1924, it had reached 28 million rubles.

In this way both the stable *chervontsi* and the falling *sovznaki* were in circulation throughout 1923 and the first quarter of 1924.

In this period the *chervontsi* became more and more widespread and gradually ousted the *sovznaki*. In February 1923 the *sovznaki* accounted for approximately 90 per cent of all the money in circulation but by next February their share had dropped to 10 per cent.

The consolidation of the state finances, the elimination of the budget deficit and the improvement of the entire system of money circulation was largely ensured by state loans (the first was floated in October 1922), the establishment of the state savings banks, by a favourable foreign trade balance in the 1923/24 financial year, and so forth.

But the parallel circulation of the *chervontsi* and the *sovznaki* had a negative effect on economic life. It was necessary to consummate the monetary reform. On February 2, 1924, the Second Congress of Soviets passed a decision authorising the immediate conclusion of the monetary reform and the issue of treasury notes.

Treasury notes of one, three and five rubles were put into circulation. The relationship between the treasury notes and the *chervontsi* rested on a firm parity basis: one *chervonets* was equal to ten rubles in treasury notes.

The issue of *sovznaki* was stopped. *Sovznaki* were redeemed at the firm rate of one ruble in treasury notes for 50,000 rubles of *sovznaki* issued in 1923. All *sovznaki* were withdrawn from circulation by April 30, 1924.

The monetary reform was of vast economic and political significance.

The stable currency helped create conditions leading to the complete elimination of the budget deficit. Since the latter half of 1924 the Soviet budget has not only known no deficit but shown a steadily increasing preponderance of revenue over expenditure.

Money circulation continued to expand with every passing year on the wholesome soil of economic upsurge and expanding trade. On January 1, 1925, there were 742.6 million rubles in circulation and exactly a year later this figure rose to 1,269.3 million rubles.

The stable Soviet ruble made it possible to strengthen the country's finances, enhance the role of the budget in

economic and cultural development and raise workers' wages and the incomes of peasant farms.

The consummation of the monetary reform facilitated economic rehabilitation and consolidated the alliance between the working class and the peasants.

Having successfully completed the restoration of the economy, the Party and the people set out to develop the country's economy. This was closely bound up with the realisation of Lenin's programme of building socialism in the U.S.S.R., and the creation of the material basis for its construction. This basis could only be the heavy industry, and the Soviet people concentrated all their efforts in the ensuing period of socialist construction to build it up.

Chapter VI

LAYING THE FOUNDATION OF THE SOCIALIST ECONOMY (1926-32)

1. Successes and Difficulties of Economic Upbuilding (1926-28)

Economic rehabilitation in the U.S.S.R. was in the main completed towards the end of 1925. Production in agriculture and in several branches of industry had either reached the pre-war, 1913, level or was close to it. Economic activity had returned to normal.

On the whole, however, the level of economic development was extremely low and could not satisfy the requirements either of a socialist society or of a more or less advanced capitalist state. There was a sort of contradiction, or incongruity, between the Soviet Union's progressive socialist system and its backward economy.

Lenin repeatedly pointed to this incongruity in the early years of Soviet rule but it was then impossible to eliminate it because the country had to concentrate all its efforts on the vital problems of organising its defence and then wiping out famine and rehabilitating the wrecked economy.

Previously, the laying of the foundation of the socialist economy was regarded as a theoretical question. Now the time had come to translate it into practice.

A very important role in drawing up the plan for socialist construction and in defining ways for building up its economic foundations was played by the Party's Fourteenth Congress held in December 1925.

The Congress noted that the principal task was to "make the U.S.S.R. economically independent and to prevent it from becoming an appendage of the world economy by

industrialising the country, expanding the output of the means of production and creating reserves for economic manoeuvring.”*

Industrialisation, therefore, became the Party's general line and the foremost task of the state's economic policy.

The need for industrialisation was dictated by the domestic and foreign policy of the young socialist state.

The U.S.S.R., the world's first and only socialist country at the time, was surrounded by hostile capitalist states.

To ensure the safety of the country, it was necessary promptly and efficiently to equip its army with guns, tanks, planes and other modern weapons. All this required a highly-developed heavy industry.

Heavy industry was also needed to solve urgent internal economic problems. Without a stable industrial basis the development of transport, light and food industries and agriculture was completely out of the question.

But there were many obstacles standing in the way of industrialisation. The greatest difficulty was that the U.S.S.R. was hard pressed for time. It had taken Britain, France and Germany decades to industrialise themselves but the Soviet Union had to do it in 10 or 15 years if it was not to fall prey to imperialist aggressors. In order to maintain high rates of industrialisation the government concentrated on building up the heavy industry and deliberately restricted the production of many essential consumer goods.

Moreover, the weak fuel, iron and steel and building industries greatly reduced the material possibilities for boosting other heavy industry branches.

Another major difficulty was the underdeveloped state of the engineering industry and transport.

It was impossible to launch extensive construction without large capital accumulations. And in this respect, too, Soviet reserves were extremely limited.

There was also a shortage of engineers and technicians. Even in 1927-28 they accounted for only 2.3 per cent of the total number of workers, whereas in the advanced capitalist countries the figure was much higher.

Industrialisation was fiercely resisted by all the counter-

* *KPSS v rezolyutsiyakh...* (C.P.S.U. in Resolutions...), Part II, pp. 196-97.

revolutionary forces in the country and this created further serious difficulties. For example, there was the case of the Shakhty saboteurs who planned to disorganise and wreck the Donets coal mines. Investigation revealed that their activity was directed by the Western imperialists.

Many difficulties were created by the low level of agricultural production. The grain situation, the foundation of all agricultural production, was extremely unfavourable.

By 1928 livestock-raising and production of industrial crops had surpassed the pre-war level, but grain harvests were still below it. In 1913 the total output of all grain crops amounted to 801 million centners, in 1925 it was 724.6 million, in 1926—768.3 million, in 1927—723 million and in 1928—733.2 million centners.

The situation was further aggravated by the fact that the bulk of grain remained in villages, and so the rapidly growing needs of towns and industrial centres could not be satisfied.

The country had on an average over 1,300 million poods of marketable grain annually before the war, and only 630 million, or half the amount, in 1926-27. A crisis in grain procurement was maturing in the country.

The decline in the amount of marketable grain was primarily due to the existence of small scattered peasant farms. Before the revolution big landowners and kulaks accounted for 71.6 per cent of it. Grain surpluses in the countryside dwindled rapidly following the abolition of landed estates and the decrease in the number of kulak farms.

True, the villagers were consuming more of the products they were growing and their position had somewhat improved, but this did not help augment food supplies to towns and the army. Moreover, there was a dire shortage of farm machines and the level of agriculture was still very low.

All surplus grain was in the hands of the kulaks. Its deliveries to towns and the army thus depended on the kulaks' desire to sell it to the state. And the kulaks used the situation to further their counter-revolutionary goals. During the 1927/28 grain-procuring campaign they boycotted Soviet rule and refused to sell grain to the state.

Once again the organs of Soviet power had to take emergency measures and, as in 1918, the working class and

the poor peasants gave decisive battle to their sworn class enemy in the countryside.

The time had come to take resolute steps to carry out socialist reforms in the countryside. Accordingly, the Party's Fifteenth Congress, held in December 1927, decided on extensive collectivisation of agriculture. "The unification and reconstruction of small individual peasant farms into large-scale collective farms," the Congress resolution stated, "must be made the basic task of the Party in the countryside."* The Fifteenth Congress went down in history as the collectivisation congress.

The prerequisites for the complete co-operation of peasants, however, were non-existent in 1927. They had been maturing in the socialist conditions for several years and became fully ripe only in the latter half of 1929. Among the most important were: 1) the foundations of industrialisation had been laid—without that it would have been impossible to supply the numerous collective farms with modern farm machines; 2) more and more peasants were accepting the ideas of collectivism after witnessing the efficient functioning of the collective and state farms; 3) sufficient co-operative experience had been accumulated in credit, marketing, consumers' and other non-productive co-operatives, and 4) the poor and the bulk of the middle peasants were successfully countering the hostile activity of the kulaks which manifested itself most acutely during the 1927/28 grain-procurement campaign.

Consequently, the prerequisites for nation-wide collectivisation were created between 1926 and 1928.

Those were some of the most characteristic difficulties which the people had to overcome in the initial period of industrialisation.

The industrialisation of the U.S.S.R. furnished extensive experience for its accomplishment in socialist conditions. The fact is that socialist industrialisation differs radically from that in capitalist countries.

Capitalist industrialisation always begins with the development of light industry. Mass production of consumer goods makes it possible to accumulate capital for building heavy industry. It becomes profitable to invest capital in the engineering, fuel, iron and steel and other related

* *KPSS v rezolyutsiyakh...* (C.P.S.U. in Resolutions...), Part II, p. 475.

industries only decades later, after a leap in the development of light industry and with the increase in the demand for machines and equipment. Such industrialisation is due to the spontaneous operation of the laws of the capitalist market and it does not have to be rapid.

Industrialisation in socialist conditions is a totally different matter. The distinguishing feature is incomparably faster rates of development. Priority here obviously has to be given to heavy industry. Rapid construction and commissioning of heavy industry enterprises, particularly engineering plants, makes it possible to accelerate the laying of the foundation of all other branches of the economy. This course, it is true, makes it necessary temporarily to limit the production of consumer articles, but then the whole economy develops at a fast pace.

In the industrialisation period the Soviet people made considerable sacrifices. There was simply no other way out of the difficult situation. Surrounded by hostile countries the U.S.S.R. was the only socialist state in the world. The Western imperialist states were preparing a war against it. So it was necessary rapidly to build up the economy of the formerly backward Russia and on its basis strengthen the country's defence. This could be achieved only by boosting heavy industry, a course which fully justified itself. The U.S.S.R. built socialism and created the material basis which made it possible to defeat nazi Germany and militarist Japan. At the same time, socialist industrialisation led to the accelerated development of all light industry branches and the steady improvement of the people's welfare. Today, when there is a community of socialist states, their fraternal mutual assistance, specialisation and co-operation make it much easier to solve the problem of their industrialisation and mitigate hardships.

Another distinctive feature of socialist industrialisation is the fundamentally new source of accumulation of funds for accomplishing it. Under capitalism industrialisation is effected through the brutal exploitation of the working people at home and the plunder of the colonial nations.

History knows of many instances when the bourgeoisie also contracted big foreign loans for the purpose of industrialisation.

Obviously a socialist state had no use for the experience of the capitalist countries in this matter, and first and

foremost because of its different socio-economic system. Such methods of accumulating funds are alien to the very nature of a socialist state. As for foreign loans, it could not obtain them because of the hostile attitude on the part of the capitalist countries.

The U.S.S.R. had only one source of accumulation: internal resources made up of profits of socialist industry and commercial organisations (both internal and external) and funds contributed by its people, who were vitally interested in boosting economic development.

The proletarian revolution put an end to the misappropriation of public funds which went to pay for the profits of local and foreign exploiters, repay loans and interest on them, and so forth.

Henceforth, these funds were used by the proletarian state for constructive purposes.

The attitude of the Soviet people to industrialisation may be judged by the enormous popularity of the internal loans to which they voluntarily subscribed. The first, called the Industrialisation Loan, was floated in 1927, and it yielded the government 200 million rubles; subscriptions to the second loan, issued the following year, amounted to 550 million rubles.

An important prerequisite of socialist accumulation was strict economy. Thrift with regard to public wealth, which in general is a distinctive feature of a socialist state, at the time frequently assumed the form of conscious abstention from incurring even necessary expenditures if they were not directly connected with industrialisation.

The third distinctive feature of socialist industrialisation was linked with its socio-economic consequences.

The history of industrialisation of the capitalist countries is replete with facts of a sharp decline in the living standards of the working people. But, then, one cannot expect anything else in the conditions of private ownership of the means of production. The higher the level of industrial development, the faster the bourgeoisie enriches itself, and "accumulation of wealth at one pole is, therefore, at the same time accumulation of misery, agony of toil, slavery, ignorance, brutality and mental degradation, at the opposite pole."*

* Karl Marx, *Capital*, Vol. 1, Moscow, 1965, p. 645.

Socialist industrialisation produces totally different results. On the basis of heavy industry there appears a powerful consumer goods industry, and agriculture steadily develops and radically alters its social structure. The growth of socialist industry strengthens the dictatorship of the proletariat, creates conditions for abolishing the exploiter classes and makes it possible fully to satisfy the material and cultural needs of the Soviet people.

The U.S.S.R. made full use of the advantages of industrialisation in conditions of public ownership of the means and implements of production and scored its first successes in industrial development in 1926-28.

In those years the state invested 5,600 million rubles in industrial development, this being almost equal to the value of all the fixed assets in the U.S.S.R. on October 1, 1925.

Hundreds of new enterprises were built and many old ones reconstructed, and they subsequently became the basis of the country's industrial development. Among them were the Shterovka, Volkhov, Shatura, Nizhni-Novgorod and several other power stations which were considered quite large for that time.

Many new coal mines were opened in the Donets Basin, including three large ones—Amerikanka, Gorlovskaya No. 19/20 and Rubchenkovskaya No. 29.

Construction was started of the country's biggest iron and steel works at Kerch and Zlatoust, and copper works in Transcaucasia and Kazakhstan.

A new copper works was commissioned at Krasnouralsk and a lead and zinc plant was put into operation at Leninsk in Kazakhstan. Several new chemical plants were built, and oil refineries were erected at Baku, Grozny and Tuapse.

The Moscow Electrical Engineering Works was commissioned, and construction of farm machinery factories was begun at Volgograd, Rostov and Saratov. Railways were built on a large scale, the most important being the Turkestan-Siberian Railway (Turksib).

The enemies of the Soviet Union kept claiming that the rates of growth of industrial production would decline sharply after the rehabilitation period. They were wrong.

In 1926 the gross output of heavy industry increased by 43.2 per cent as compared with the previous year,

in 1927 by 14 per cent and in 1928 by almost 25 per cent.

The capitalist economy did not attain such high rates even in boom years, let alone at a time when the capitalist world was on the brink of the extremely severe crisis of 1929-33.

In 1928 industry accounted for 45.2 per cent of the country's gross output as against 42.1 per cent in 1913. The table below shows the state of some of the key industries.*

	1913	1927/28
Coal (million tons)	29.1	26.4
Oil (million tons)	9.2	11.5
Pig iron (million tons)	4.2	3.3
Electricity (million kwh) . . .	1,945.0	5,007.0

Industry was thus making obvious headway in its development, with the exception of the iron and steel industry and some branches of the non-ferrous metallurgy, whose production was still somewhat below the 1913 level.

It is noteworthy that there was a rise of labour productivity in industry already then (on an average by 10 per cent) and a drop in production costs (on an average by 6 per cent).

Labour productivity rose following the installation of modern machinery in all industries. But in no small measure this was also due to the labour enthusiasm of the working class itself.

Labour activity manifested itself best in the work of production meetings, in the increase of rationalisation proposals and in the formation of shock-work teams.

The successes in construction of the heavy industry, which became the foundation for the development of the entire economy, made it possible to undertake the first steps towards improving living standards. Wages were raised, unemployment reduced, housing expanded and the food situation improved.

* P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR* (History of the National Economy of the U.S.S.R.), Vol. III, pp. 226-27.

2. Main Political and Economic Tasks of the First Five-Year Plan (1928-32)

Planned economic development is a fundamental law of the socialist mode of production.

The need to co-ordinate the development of all branches of the economy made itself felt in Soviet Russia soon after the proletarian revolution. We have already said that the first general long-term economic plan was the GOELRO plan adopted at the close of 1920. In the ensuing years it became the basis for determining the annual control figures of economic development.

This system of planning fully met the requirements of economic construction in the rehabilitation period.

At that time, the economic task was formulated in clear and concrete terms: to restore the wrecked factories and raise production in all branches of the economy to the pre-war level.

Totally different demands were made on the long-term plan at the time the country was laying the foundation of the socialist economy. The question of planning was thoroughly discussed at the Party's Fifteenth Congress (end of 1927) which instructed the Central Committee "to draw up the five-year plan in time for the next Congress of Soviets and to see to it that its draft is carefully and thoroughly discussed by all local Soviets, trade union, Party and other organisations".*

The decision that the plan be extended over five years (from October 1928 to October 1933**) was taken because this period was considered most suitable. It was long enough not only to build modern industrial enterprises, power stations, railways and other large projects but also to re-equip whole branches of the economy.

A Party conference was convened to examine the draft plan, and in May 1929 the Fifth Congress of Soviets made it a law.

The Congress decision stated that the first five-year plan (1928-32) was an "extensive programme for the socialist

* *Direktivny KPSS i sovetskogo pravitelstva po khozyaistvennym voprosam* (Directives of the C.P.S.U. and the Soviet Government on Economic Matters), Vol. 1, p. 780.

** In the 1920s, the fiscal year in the U.S.S.R. began on October 1 and not on January 1, as is the case today.

reconstruction of the national economy, fully conforming to the Soviet Government's general policy of industrialising the U.S.S.R., reconstructing the countryside along socialist lines, overcoming the capitalist and steadily strengthening the socialist elements in the country's economy and boosting the defence capacity of the U.S.S.R."*

This concise statement defined the principal political and economic targets of the five-year plan: firstly, to build a modern highly developed heavy industry and thus make it possible to begin the reconstruction of the entire national economy, lay the foundations for the economic independence of the U.S.S.R. and strengthen its defence capacity; secondly, make a big step towards radically reorganising the small individual peasant economy into a large-scale collective economy capable of supplying the country with food and industry with agricultural raw materials, and thirdly, to oust capitalist elements from all branches of the economy and abolish the exploiter class.

To fulfil these tasks the government planned to invest 64,600 million rubles, an enormous sum in those years, including 16,400 million in industry, 10,000 million in transport, 3,100 million in electrification and 23,200 million in agriculture. Let us note for the sake of comparison that investments in the preceding half a decade (1923/24-1927/28) amounted to 26,500 million rubles.

In line with the general plan of industrialisation the bulk of investments were channelled primarily into industries producing the means of production (78 per cent of the total sum). In the five-year period it was planned to increase the gross industrial output by 180 per cent and the production of the means of production by 230 per cent.

In agriculture the plan envisaged a rise of the output of the basic products to a level that would meet the country's requirements, and a vigorous extension of the socialist sector in the countryside.

Agricultural production was to increase from 16,600 million rubles in 1927/28 to 25,800 million rubles in 1932/33.

The co-operation of production was to develop to a point where the socialist sector would account for not less than 15.5 per cent of the gross output of grain and 43 per cent of marketable grain.

* *Direktivy KPSS i sovetskogo pravitelstva...*, Vol. 2, p. 66.

The five-year plan envisaged a more resolute ousting of the capitalist elements, and a socialist offensive against the survivals of capitalism everywhere. This was an important and complicated task because the capitalist sector at the time still accounted for approximately 25 per cent of retail trade and about 17 per cent of industrial production.

The kulaks were producing 20 per cent of marketable grain, and the capitalist elements were still influencing a section of the peasants, artisans and office workers.

It was necessary for ever to free the Soviet people from the exploiters and to eliminate the danger of capitalism being restored by internal reaction.

3. Transformation of the U.S.S.R. from an Agrarian Country into an Industrial Power

The first five-year economic plan was very widely commented upon by the bourgeois press.

Kraemer, a prominent German economist, wrote: "It would be grand if the five-year plan could be fulfilled in fifty years. But it is a utopia."

The working people of the Soviet Union, however, gave the sceptics an object lesson. In response to the Party's call, they launched a mass socialist emulation movement for the fulfilment and overfulfilment of the plan under the slogan of "the five-year plan in four years".

The country was swept by enthusiasm. Towards the end of the five-year plan period almost 75 per cent of all the workers and most of the Soviet intellectuals had joined the emulation movement. Besides the principal form—participation in shock-work teams—the people advanced new forms of emulation. In July 1930, for example, the workers of the Karl Marx Engineering Plant in Leningrad advanced the idea of elaborating a counter-plan, and many other enterprises soon followed suit. The workers of an enterprise would discuss the plan handed down by the head office or trust and amend it with due account of the available reserves of labour productivity and the possibilities of improving the use of raw material, equipment and wage funds. It was thus that they would adopt a plan with higher indices—the counter-plan.

Particular activity was displayed by the youth and their vanguard, the Young Communist League, which was awarded the Red Banner of Labour for its outstanding part in socialist emulation.

By dint of enormous effort the country made much headway in its industrial development. More than 1,500 large industrial enterprises were built, including such important ones as the Lenin Hydropower Station on the Dnieper (Dneproges), the Magnitogorsk and Kuznetsk iron and steel works, the Urals Heavy Engineering Works, the Volgograd and Kharkov tractor plants, the Moscow and Gorky automobile plants, the Rostov and Saratov farm machinery factories, the Berezniki and Voskresensk chemical plants and the Moscow electrical and ball-bearing plants.

In 1932 the volume of heavy industry output was almost three times the pre-war level and more than twice as high as in 1928. Each year the output of Group A (production of the means of production) increased by 28.5 per cent, and Group B (production of consumer goods) by 11.7 per cent. As a result, the five-year plan was fulfilled in four years and three months. In other words, by the close of 1932 all the key target figures of the plan had been attained and some surpassed.

In these four years and three months a total of 23,300 million rubles were invested in industry, whereas the expanded five-year programme provided for only 18,800 million.

The effect derived from investments in industry may be judged by the table on page 152 giving the output figures of the key industries before and after the five-year plan.*

With the five-year plan fulfilled, the balance between industry and agriculture changed sharply in favour of industrial production: industry's share in gross output increased from 48 per cent in 1927/28 to 70 per cent in 1932.

In industry itself the output of Group A assumed dominating importance, if compared with the output of Group B; from 44.5 per cent in 1927/28 it rose to 53 per cent in 1932.

Many industries without which no country could hope to occupy a leading place in the world economy were built practically from scratch.

* V. T. Chuntulov, *Istoriya narodnogo khozyaistva SSSR. Epokha sotsializma* (History of the National Economy of the U.S.S.R. Epoch of Socialism), Kiev, 1962, pp. 154-55.

	1928	1932	1932 (in per cent of 1928)
Pig iron (million tons) . . .	3.3	6.2	188
Steel (million tons)	4.3	5.9	139
Coal (million tons)	35.5	64.4	181
Oil (million tons)	11.6	21.4	184
Electric power (thousand million kwh)	5.0	13.5	170
Metal-cutting lathes	2,000	19,700	900
Automobiles	800	23,900	2,800
Tractors (in terms of 15 hp)	1,800	50,800	2,700
Cotton fabrics (million metres)	2,678	2,694	100.6
Leather footwear (million pairs)	58.0	86.9	149.8

Before the revolution and in the early years of Soviet rule Russia did not have modern iron and steel, tractor, chemical, automobile and aircraft industries. They were created during the first five-year plan period. A new coal and metallurgical base—the Urals-Kuzbas—appeared in the East of the country. The large defence industry plants that were built in this period supplied the Red Army with up-to-date materiel.

Latest achievements in science and technology were introduced into the new branches of industry and enterprises, many of them better equipped than the best enterprises of their kind abroad. It was not surprising, therefore, that the engineering industry increased output by 350 per cent during the five-year plan period and by 900 per cent over the pre-war.

Industrial development in that period was distinguished by the substantial increase of concentration of production. The new enterprises, as a rule, were the biggest not only in the number of workers employed but also in the level of technical equipment and volume of output. Suffice it to say that 53.3 per cent of the workers of the engineering industry were concentrated in 7.7 per cent of the biggest enterprises, each employing over 5,000 persons.

The growing concentration created favourable conditions for specialising enterprises and developing line production. In engineering, for example, nearly 75 per cent of output was accounted for by specialised plants.

"The U.S.S.R.," the January 1933 Plenary Meeting of the Party's Central Committee pointed out, "*once an agrarian country, has thus become an industrial power and strengthened its economic independence, for it now can produce the greater part of the necessary equipment at its own enterprises.*"*

During the industrialisation period tangible changes took place in the pattern of industrial production. Priority was given to the development of the key branches of industry (engineering, power and iron and steel).

The engineering industry became the core of industrialisation. The five-year plan targets in this branch were surpassed by 64.8 per cent.

Before the revolution Russia imported most of the machinery and equipment she needed but at the end of the first five-year plan period the U.S.S.R. was second only to the U.S.A. in the level of world engineering output.

The effort was concentrated on electrification and power engineering. In the five-year period the total capacity of the Soviet power stations rose from 1,905,000 to 4,696,000 kw. After the Dnieper Hydropower Station the country built the Kashira, Shatura, Gorky, Shterovka, Zuyevka and Krasny Oktyabr (Red October) and dozens of other power plants.

Before the first five-year plan the U.S.S.R. had no electric stations of 100,000 kw. At the close of the period there were already ten with capacities ranging from 100,000 to 300,000 kw.

The coal industry progressed substantially, too. The output was 81 per cent above that of 1927/28. The new Kuznetsk and the Karaganda coal basins, which appeared in this period, yielded 7,595,000 and 739,000 tons of coal in 1932.

Mechanisation of coal extraction boosted the development of the coal industry, particularly in the Donets Basin which produced more than two-thirds of the country's coal.

The oil industry's progress was even greater. The five-year oil production plan was overfulfilled. Like the coal mines, the oilfields were modernised and powerful pipelines were laid between Baku and Batumi, Grozny and Tuapse, and Armavir and Trudovaya.

* *Direktivny KPSS i sovetskogo pravitelstva...*, Vol. 2, p. 365.

New equipment was also installed in the oil refineries, thus making it possible to raise labour productivity and increase the output of oil products.

The ferrous and non-ferrous metallurgy, the sore spot in the Soviet economy in the 1920s, in the main overcame its lag during the first five-year plan period.

The problem of meeting the country's requirements in metal was solved in two ways: by reconstructing old enterprises (in the Ukraine and the Urals) and by building new metallurgical giants (chiefly in the Kuznetsk Basin and on the Kerch Peninsula).

Production was organised of high-grade steels, heat-resisting alloys, aluminium, nickel and certain other metals essential for the engineering, aircraft, automobile, tractor and defence industries.

The chemical industry increased the output of its basic products—sulphuric acid, superphosphates and soda—by more than 150 per cent.

Thanks to the vast newly-discovered mineral deposits the U.S.S.R. fully revitalised its coke-chemical, nitrate, potassium, apatite and pharmaceutical industries and laid the foundation for the production of artificial fibres, synthetic rubber and plastics.

The widespread industrial construction, which had drawn even the most remote parts of the country into vigorous economic activity, called for the development of all forms of transport, particularly railways. Here, too, the material and technical basis was expanded and renovated (railway lines, locomotives and carriages, and all kinds of equipment).

The most important new railways built in this period were the Turkestan-Siberian (about 1,500 kilometres) and the Borovoye-Akmolinsk-Karaganda line passing close to the Urals-Kuznetsk Works. Work was started on a major railway linking Moscow and the Donets Basin.

All told, about 5,500 kilometres of new railways were commissioned during the first five-year plan. The manufacture of rolling stock almost doubled.

Rail freightage in this period increased by 80 per cent to total 169,300 million kilometre/tons.

The U.S.S.R. became a leading railway power: first in the world in passenger traffic and second in freightage.

Important changes took place in sea and inland communications. Particularly important was the construction of

the White Sea-Baltic Canal and the Dnieper Dam which made the whole of the Dnieper navigable.

The rate of transport development nevertheless lagged behind the rapid growth of industry, and the targets set by the five-year plan in this sphere were not achieved. The lag was overcome in the second five-year plan period.

The light and the food industries expanded more slowly than heavy industry. This was entirely in conformity with the industrialisation plan. Because of the shortage of raw materials the textile industry fell short of the plan target. The food industry overfulfilled its plan.

Such in brief was the situation in the key branches of industry and transport in the period of the first five-year plan.

The picture, however, would be incomplete were we to by-pass another radical change in the industrial development of the country, namely, the improved siting of industrial enterprises. Before the revolution Russia's industry was concentrated in the European part of the country (Centre, South, the Caucasus, the Baku area, West, Northwest and the Urals).

This debarred many outlying non-Russian areas from active economic life, left untapped the vast raw-material and fuel resources of the Eastern regions, and exposed the U.S.S.R. to great danger in the event of a military attack from the West.

Taking all these factors into consideration, the five-year plan envisaged large capital investments into the development of the Eastern areas. The creation of another coal and iron and steel base in the East put an end to the economic backwardness of Bashkiria, Siberia, Kazakhstan and other areas. The third coal base at Karaganda, the Emba oilfields, the copper works, the lead and zinc plant and the Turkestan-Siberian Railway radically altered the economic pattern of Kazakhstan. Many light industry enterprises, electric power stations and other industrial projects were built in Tashkent, Ashkhabad, Dushanbe, Frunze, Samarkand, Bukhara, Osha and other Central Asian towns.

To promote industrialisation the government reorganised the system of industrial management. The former, somewhat indefinite, position of industrial enterprises in the system of trusts was no longer expedient. It was essential to heighten the economic interest of the industrial enter-

prises in their production, grant them greater independence, strengthen one-man management and abolish parallelism in administration bodies.

The management of industry by various trusts and the Supreme Economic Council was neither sufficiently concrete nor operational. It was necessary, therefore, to divide the Supreme Economic Council and the trusts into smaller units and to establish sectoral people's commissariats (later renamed ministries). Three industrial commissariats were formed in 1932 for heavy, light and timber industries.

The first five-year plan was carried out in conditions characterised by the growth and strengthening of socialism both in the country itself and on a world scale. Industrialisation, which was a revolutionary process, was violently resisted by the anti-proletarian forces. It was then that the historical question of "who will beat whom" in Russia was decided in favour of socialism and to the detriment of capitalism. Towards the end of the first five-year plan the share of the private sector in Soviet industry dropped to 0.5 per cent from 10.5 per cent in 1929.

The successes of socialist industrialisation in the U.S.S.R. stood out all the more against the background of the extremely severe economic crisis of 1929-33 which caused a catastrophic decline in industrial production in the capitalist countries. In the U.S.A., for example, industrial output decreased by 44 per cent from the 1928 level, in Germany by 45 per cent, in France by 25 per cent and in Britain by 20 per cent.

4. Socialist Reconstruction of Agriculture

The mounting industrial might of the U.S.S.R. made the disparity between advanced socialist industry and backward individual peasant economy all the more pronounced. It was imperative radically to reorganise the countryside along socialist lines. By this time all the economic and political prerequisites for mass collectivisation had been created and the collective-farm movement was rapidly gaining momentum.

In 1927 there were 14,800 collective farms uniting 194,700 peasant households (0.8 per cent of the total). By the

spring of 1929 their number had increased to 57,000, embracing 1,000,000 households. The influx of the peasants into collective farms increased still more in the summer and particularly in the autumn of 1929. The important thing was that in this period the middle peasants, who made up the bulk of the rural population, began joining collective farms in large numbers. Collectivisation thus became a mass movement.

In these conditions the policy of politically restricting and gradually ousting the kulaks no longer conformed to the demands of the times. Complete collectivisation made it possible and necessary to liquidate the kulaks, the sworn enemy of the proletariat and the toiling peasantry, as a class.

On January 5, 1930, when collectivisation was at its height, the Central Committee of the Party published its resolution on the rate of collectivisation and government measures to assist in the establishment of collective farms, which supplied an exhaustive answer to all vital questions related to nation-wide collectivisation. The resolution stated that "instead of collectivising 20 per cent of the sown area as provided for by the five-year plan, we shall be able to collectivise the bulk of the peasant households".* Collectivisation in the major grain-producing areas (the Lower and Middle Volga and the North Caucasus) was to be completed by the autumn of 1930, or the following spring, and not later than by the spring of 1932 in other grain-producing regions. As for the non-grain-producing zone, it was planned to complete collectivisation there towards the close of the five-year plan period.

The decision fixing different time limits took into account the degree of preparedness of these areas to carry out collectivisation.

The agricultural *artel* where the "basic means of production (dead stock and livestock, production premises, and beef and dairy cattle)" were collectivised, was recognised as the main type of agricultural co-operative. The Party's Central Committee warned "Party organisations against 'ordering' the collective-farm movement from above". Steps were taken to supply collective farms with trained personnel, farm machinery, credits, and so forth.

* *Direktiviy KPSS...* (Directives of the C.P.S.U...), Vol. 2, p. 137.

Twenty-five thousand Party members and foremost workers were sent to help implement the Party collectivisation policy. They did a wonderful job rallying the poor and middle peasants for the struggle for collectivisation and against the counter-revolutionary activity of the kulaks.

Practice showed, however, that by far not all Party and Soviet workers guided the collective-farm movement correctly. There were grave violations of the Party's policy and Leninist principles of co-operation. The errors frequently committed at the outset of mass collectivisation were primarily due to their underestimation of the private-ownership mentality of the peasants.

The principal errors were:

Firstly, the established rate of collectivisation was violated. The local organs of the Central Black-Earth and Moscow regions, for example, decided to complete collectivisation by the spring of 1930, their line was followed in other areas;

Secondly, the forced rate of collectivisation led to the violation of the principle of voluntary membership in collective farms. In some places the peasants were coerced into joining them;

Thirdly, in uniting the peasant households they socialised not only the basic means of production but also dwellings, sheep, goats, pigs and poultry. In other words, instead of setting up agricultural artels, they were advised to establish communes.

As a result of administrative pressure, the rate of collectivisation rapidly increased. On the whole, about 60 per cent of the peasant households had united into collective farms by February 20, 1930, and some regions reported the completion of collectivisation.

The class enemies used the errors and distortions in the establishment of collective farms to further their counter-revolutionary ends. The kulaks, former whiteguards and certain other anti-Soviet elements stepped up their activity. The Right-wing opportunists followed suit. Here and there the enemies succeeded in provoking anti-Soviet acts. The Kharkov *Proletary*, for example, reported in 1930 that "a group of armed kulaks attacked members of the Zarya (Dawn) Collective Farm in the village of Volnoye, Pisarevka District, who were guarding grain, killing three collective farmers and heavily wounding another".

At that time, the press carried many similar reports. Urgent measures had to be taken to rectify errors and curb the kulaks.

It was decided to dispossess the kulaks. On February 1, 1930, the Central Executive Committee and the Council of People's Commissars repealed the laws sanctioning the lease of land and the employment of hired labour by private households in areas of total collectivisation, and instructed the local organs of power to enforce "all necessary measures in the struggle against the kulaks, including confiscation of their property and their eviction from certain areas and territories (regions)".* Dispossession of the kulaks was carried out by the peasants themselves. Kulak property was turned over to collective farms or became the property of the state. The kulak houses were turned over to schools, hospitals and other cultural and educational institutions.

Steps were also taken to rectify errors and distortions in the development of collective farms. At the beginning of March 1930, *Pravda* published an article emphasising that coercion in collectivisation was impermissible.

In the decision on the struggle against the distortion of the Party's collective-farm policy, adopted on March 14, 1930, the Central Committee analysed the errors and proposed measures to eliminate them. It instructed Party organisations to proceed with collectivisation along voluntary lines and to strengthen collective farms organisationally and economically.

After this came a period when the peasants who had been forced to join the collective farms began quitting them. In May 1930 the collectivisation percentage dropped to 28 per cent and in September to 21 per cent.

Then came a new upsurge in collective-farm development, this time resting on a sound basis.

The table on page 160 shows the general trend of collectivisation in the first five-year plan period.**

Out of the total of 99.7 million hectares of land under grain in 1932 the collective farms accounted for 69.1 mil-

* *Sobraniye Uzakonenii i rasporyazhenii za 1930 god* (Collection of Laws and Regulations for 1930), No. 9, p. 105.

** P. I. Lyashchenko, *Istoriya narodnogo khozyaistva SSSR*, Part III, p. 368.

	1929	1930	1931	1932
Collective farms (thousand)	57	85.9	211.1	211.05
Peasant households (million)	1	6	13	14.9
Percentage of collectivised peasant households . . .	3.3	23.6	52.7	61.5

lion, state farms for 9.3 million, and individual households for 21.3 million hectares.

The same year 84.1 per cent of the state procurements of grain came from collective and state farms.

Much attention in this period was also devoted to expanding and strengthening the state farms. Towards the end of the five-year period there were 4,337 state farms with approximately 10 per cent of the total sown area, 51,500 tractors and more than 12 million head of livestock. As for the level of application of scientific principles in land cultivation, they were far ahead of the collective farms and individual peasant farms.

Output indices, however, remained practically unchanged. The only increase, and not a very big one, was registered in the output of cotton and oil-bearing plants.

The livestock population had declined a lot as a result of the kulaks' subversive activity. The number of cows, for example, dropped from 66.8 million in 1928 to 40.7 million in 1932.

Agricultural production was also hit hard by crop failures in 1931 and 1932.

In agriculture, during the first five-year plan period prerequisites were created for its subsequent development through the radical reorganisation of the entire socio-economic pattern of the countryside.

In the course of this reorganisation the state rendered the collective-farm system all-round assistance and helped strengthen its material basis.

A big part in this respect was played by the steadily increasing supply of machines to the farms.

During the five-year period agriculture was supplied with 120,000 tractors and 1,600 million rubles worth of other farm machinery. Compared with 1928, the number of farm machines had more than doubled.

To enhance the state's influence on agriculture and ensure the efficient utilisation of farm machinery the bulk of the machines were concentrated at state machine-and-tractor stations (MTS), which were a new form of technical assistance to collective farms which had arisen in the meantime. Today this revolutionary form has become widespread in many countries developing along non-capitalist lines.

The first MTS was established by the Shevchenko State Farm in Odessa Region. In the spring of 1927, the farm suggested that all peasants living in the vicinity pool their land and cultivate it with the farm's tractors. The relations between the farm and the peasants were cemented by a special agreement.

In the spring of the following year the Shevchenko State Farm had 14 tractor teams cultivating large tracts of land in a number of districts of Odessa Region.

It was decided to emulate the experience of the farm, and soon machine-and-tractor stations were set up in all parts of the country. Towards the end of the five-year period there were nearly 2,500 machine-and-tractor stations with about 75,000 tractors.

In these years the government also rendered increasing financial aid to the newly established collective farms. In four years and three months it invested a total of 9,400 million rubles into the socialist sector of agriculture instead of the planned 7,200 million rubles.

On April 2, 1930, the Central Executive Committee and the Council of People's Commissars issued a decree on new privileges to collective farms, according to which the farms were granted credits and exempted, as were the collective farmers, from all tax for the next two years.

The government also spent large sums for land organisation by collective farms, furnishing them with high-grade seeds, pedigree cattle, etc.

An important part in reinforcing the collective farms organisationally and economically was played by the Model Rules of the Agricultural Artel worked out by the central organs and published on March 2, 1930. The Rules clarified the question concerning the socialisation of the means of production. This was followed, in 1931, by the elaboration of principles of organising and evaluating work at collec-

tive farms, introduction of work-day remuneration and formation of permanent production teams. The government enforced strict measures to protect collective-farm property, which was given the same status as state property (Law of August 7, 1932).

The victory of the collective-farm system in the first five-year-plan period should be regarded as a far-reaching revolutionary transformation in agriculture which uprooted capitalism in the countryside. Here, as in industry, private ownership of the means of production was supplanted by socialist property, and the small peasant economy was replaced by large-scale, mechanised socialist economy.

This great revolutionary change in the village was prepared and carried out after years of strenuous effort on the part of the working class and the labouring peasantry.

The C.P.S.U. Programme adopted at the Twenty-Second Party Congress assesses the importance of collectivisation as follows: "The introduction in the Soviet countryside of large-scale socialist farming meant *a great revolution in economic relations, in the entire way of life of the peasantry*. Collectivisation for ever delivered the countryside from kulak bondage, from class differentiation, ruin, and poverty. The real solution of the eternal peasant question was provided by the Lenin co-operative plan."^{*}

5. Trade, Finances and Rise of the People's Welfare

Socialism launched an all-out offensive against capitalism in the U.S.S.R. in 1930. In industry it completely ousted private capital, in agriculture it abolished the kulaks as a class, and in commerce it evicted the NEPman and assured the victory of the Soviet mode of trade. Private trade was prohibited in the U.S.S.R. in 1932. But commodity production cannot exist without commodity circulation and its principal form—trade. The state built thousands of new shops, warehouses and commercial bases, and trained a big army of trade workers.

All this made it possible to bring the turnover of state and co-operative retail trade in 1932 to 39.900 million ru-

^{*} *The Road to Communism*, Moscow, 1961, p. 458.

bles (in prices of those days), that is, to increase the amount of retail goods to 175 per cent of the 1928 level.

True, commodity circulation did not reach the target set by the five-year plan on account of the lag in the production of consumer articles and difficulties in agriculture, with the result that the population's requirements in staple goods remained unsatisfied.

In these circumstances the only correct way of solving the supply problem was the introduction of rationing, which lasted throughout the first and the beginning of the second five-year plan periods (from January 1929 to 1935), and covered 45 million people. It must be borne in mind, however, that this rationing system differed radically from the one in force during the civil war. In the latter case this measure was necessitated by famine and economic dislocation, but in 1929 rationing was introduced to help the country cope with the supply difficulties created by the growth of all branches of the economy. During the civil war rations were meagre and often none were distributed for long spells. Now they were much bigger and there were no interruptions in their distribution.

Foreign trade was also placed at the service of the five-year plan. To promote industrialisation, the U.S.S.R. increased the exports of many farm products, including grain and butter, and also oil products, manganese ore, timber and pelts. This allowed it to accumulate more than 20,000 million rubles in gold for construction purposes.

In return it imported machines, lathes, plant and industrial raw materials.

The volume of imports during the five-year plan period reached its highest level in 1931, with the capital goods accounting for 93 per cent of the total.

The Soviet Union's biggest, trading partners in those years were Britain, Germany, Italy and the U.S.A.

The state budget, finances and the banking system played an important part in boosting industrialisation. The state mobilised the bulk of the funds for socialist construction through the State Bank (91,300 million rubles out of 120,100 million). Budget revenues mounted from year to year, increasing from 8,830.4 million rubles in 1928/29 to 38,041.5 million rubles in 1932, that is, by 330 per cent. This allowed for greater outlays for the construction or reconstruction of all branches of the economy.

The capital was accumulated and utilised according to plan with the aid of the State Bank and the entire system of state credits.

New conditions raised new problems before the banking system. Previously, the main function of the State Bank was that of keeping accounts and regulating credit relations between enterprises. In the five-year plan period it became the central organ keeping account of production and distribution of commodities, exercising control over the fulfilment of the plans, and consolidating the system of cost-accounting.

It was with an eye to these goals that a credit reform was carried out in 1930-32. The old system of granting commercial credits was abolished and direct banking crediting was introduced. On the basis of cost-accounting the State Bank extended direct credits to enterprises to the extent to which a given enterprise followed the savings policy, lowered production costs, increased inner accumulations, and other production indices. Specifications were worked out determining the purposes a loan could serve, its urgency and the date of its repayment of a liability. Special long-term credit and finance banks (Industrial Bank, Agricultural Bank and All-Union Commercial Bank) were founded in 1932.

The credit reform was accompanied by a tax reform decreed by the Central Executive Committee and the Council of People's Commissars on September 2, 1930.

The numerous taxes on commodities, which complicated financial planning, were annulled. Instead, the enterprises of the socialist sector were to pay tax on the turnover and deductions from profits. The co-operative organisations had to pay income and turnover taxes. Income taxes were based on wages. The system of agricultural taxation was also modified.

Industrialisation in socialist conditions, as we have said above, raises people's material and cultural standards. This distinctive feature of industrialisation manifested itself in the first five-year plan period.

The most general index of the level of society's material and cultural development is the national income and its rate of growth. It is the national income that is the source which gives society the means for satisfying its vital needs.

If we take the 1913 national income at 100 per cent, we shall see that during the period under review it was as follows: 1926—103 per cent, 1927—110 per cent, 1928—119 per cent, 1929—138 per cent, 1930—167 per cent, 1931—195 per cent and 1932—217 per cent. In the last year of the plan period, the national income amounted to 45,500 million rubles, making it possible to quadruple the wage and social insurance funds. Although the number of workers and employees increased by less than 100 per cent (from 3.5 million to 6.7 million), the average annual wages rose more than 100 per cent.

One of the biggest victories of socialism in the first five-year plan period was the elimination of unemployment, this baneful remnant of the capitalist system. It may be recalled that even according to patently minimised figures issued by the League of Nations' International Labour Bureau, there were then over 30 million jobless in the capitalist countries (excluding China, India, Indonesia and Korea).

Increasing mechanisation facilitated labour, and the working day was reduced to seven hours, becoming the shortest in the world.

The government allocated huge sums for social insurance, medical services, paid holidays, schools, housing construction, etc. In 1932, for instance, it spent 1,770.3 million rubles for education and cultural facilities, 1,033 million on public health, and 910 million on social insurance.

The measures taken to promote culture were so sweeping and grandiose that they might justly well be called a cultural revolution. The U.S.S.R. almost fully wiped out illiteracy and introduced universal primary education. Hundreds of technical schools, workers' departments at higher schools and institutions of higher learning were established. Newspaper and magazine circulation increased sharply. Radio stations, cinemas, reading rooms, clubs, theatres and other cultural facilities were built in the most remote parts of the country.

The victorious Soviet proletariat thus showed the world that it was capable not only of overthrowing the capitalist rule but of building a free, secure and cultured life.

Chapter VII

COMPLETION OF SOCIALIST ECONOMIC RECONSTRUCTION. VICTORY OF SOCIALISM

1. Principal Political and Economic Tasks of the Second Five-Year Plan (1933-37)

The international situation became increasingly tense for the Soviet Union in the second five-year plan period. In 1933 the capitalist world toiled over an extremely severe economic crisis and entered a phase of prolonged depression only to be overcome with another crisis in 1937.

In conditions of the general crisis of capitalism, the economic crisis and the slump aggravated the contradictions in the imperialist camp and stimulated the revolutionary movement.

Under these circumstances, the monopolists in some capitalist countries considered that they could preserve their rule only by establishing an open fascist dictatorship. The fascists came to power first in Italy, then in Germany and Spain.

Serious military conflicts flared up in different parts of the world. The invasion of China by the Japanese militarists produced a hotbed of war in the Far East. In 1935 Italy seized Ethiopia, and in 1936 Germany and Italy provoked a civil war in Spain and helped Franco set up a fascist dictatorship.

As history showed, however, the aggressors directed their main efforts against the U.S.S.R., the world's first socialist state.

In 1936 Germany and Japan concluded the so-called anti-Comintern pact, to which Italy adhered a year later. Imperialist-incited incidents on the U.S.S.R. frontier and

against Soviet diplomatic missions abroad became commonplace.

It was obvious that international reaction was preparing a new world war and that aggression against the Soviet Union was the focal point of its plans.

Meanwhile, there was a great upsurge of economic and political activity in the U.S.S.R., where the first five-year plan had laid a stable foundation for building socialist economy. By fulfilling the plan in four years and three months, the Soviet people had created conditions for solving fresh and more complex problems of political and economic development.

The principal political task set by the second five-year plan, worked out by the Party's Seventeenth Congress, was the elimination of all remaining capitalist elements and causes breeding class differences and exploitation.

After the collectivisation of peasant households and formation of co-operatives embracing all handicraftsmen the task was to do away with the private ownership of the means of production and the different economic sectors and make the socialist mode of production the one and only mode of production in the U.S.S.R.

The main economic task of the second five-year plan was to complete the technical re-equipment of the entire economy and to build up a new technical basis resting on the heavy industry created in the first five-year plan period. In industry, one of the paramount tasks, along with further capital construction, was the organisation of production at new enterprises.

In agriculture, the chief task was the further organisational and economic consolidation of collective farms. Most of those established in the first five-year plan period were small and economically weak. They did not have enough machines; most of them had no marketable livestock, their non-distributable assets were small, labour discipline was lax.

In the ideological sphere, it was necessary to overcome the capitalist survivals in the minds of the Soviet people and turn the country's entire working population into active builders of socialism.

One of the major tasks in the second five-year plan period was defined as follows: "Total elimination of the remnants of the parasitical classes and general growth of

the national income placed wholly at the disposal of the working people must ensure in the second five-year plan period a still faster improvement of the well-being of the workers and collective farmers and a considerable rise of real wages, and raise consumption by 100 to 200 per cent.”*

Finally, it was of utmost importance further to strengthen the defence capacity of the country.

The second five-year plan allocated 133,400 million rubles for capital construction as against 64,600 million in the preceding half a decade. Of this sum 69,500 million were to be invested in industry, 15,200 million in agriculture and 26,300 million rubles in transport. Industrial output was to increase by over 100 per cent, gaining by an average of 16.5 per cent a year.

Attention was again focused on machine-building, electrical engineering, metallurgy and other branches of heavy industry. The machine-building industry was to ensure the technical reconstruction of all branches of the economy and the mechanisation of all labour-consuming and arduous processes in industry.

It was planned to complete the electrification of industry, bring the production of iron and steel to the required level and accelerate the development and technical re-equipment of the non-ferrous metal industry.

Notable progress was also envisaged in the development of the chemical industry, particularly in the production of fertilisers (a tenfold increase in five years).

Greater scope was given capital construction in all branches of the light and food industries, thus creating a firm basis for a radical improvement of living standards.

The mastering of new techniques and new industries was to raise the productivity of labour by 63 per cent, lower production costs by 26 per cent, and sharply improve the quality and increase the variety of commodities.

The completion of collectivisation and the technical reconstruction of agriculture were to yield a twofold increase in farm output (from 13,100 million to 26,200 million rubles). To reinforce the material basis of collective farming, it was planned to increase the number of machine-and-tractor stations to 6,000 (in 1932 there were 2,446), the tractor fleet to 8.2 million hp, the number of combines to 100,000 and lorries to 170,000.

* *Direktivы KPSS...* (Directives of the C.P.S.U. ...), Vol. 2, p. 390.

All transport facilities, particularly the railways (electrification, construction of new lines, renovation of rolling stock, etc.), were to be radically improved. Rail freightage was to be increased from 169,000 million in 1932 to 300,000 million ton/kilometres.

To fulfil the plan of technical reconstruction and mastering new machines it was essential to have skilled workers, technicians and engineers in sufficient numbers in all branches of the economy. The five-year plan advanced a programme for training 5 million workers, 850,000 technicians and 340,000 highly skilled specialists.

As a means of further improving the siting of productive forces, about 50 per cent of the capital allocated for the construction of new heavy industry enterprises was invested into the eastern regions of the country.

Besides promoting the development of all branches of the economy, the second five-year plan mapped out an extensive programme for raising the material and cultural level of the working people.

The people's income in the last year of the five-year plan period was set at 100,000 million rubles, that is, 140 per cent more than in 1932.

Such were the general targets of the second five-year economic development plan for 1933-37.

2. Growth of Socialist Industry and Completion of Its Technical Reconstruction

In the first five-year plan period, as we have said in the preceding chapter, thousands of large industrial enterprises were built or re-equipped, a modern technical basis was created for the economy, and many new industries were started. Heavy industry, particularly engineering, made it possible to launch the technical reconstruction of the entire economy.

This process continued during the second five-year plan period. In the first two years, the country's economy was supplied with almost as many lathes and machines and as much other equipment as in the first five-year plan period.

The fulfilment of the second five-year plan and the increasing flow of machinery into the economy made the problem of training personnel to handle new techniques

to further the growth of the productive forces all the more important.

The slogan in those days was "Personnel that has mastered techniques decides everything", a logical sequel to the slogan "Techniques in the period of reconstruction decides everything", which was advanced at the beginning of the reconstruction period when the shortage of machinery was particularly acute.

Now that this problem had been solved it was necessary to train not only thousands of technicians and engineers but also millions of people directly engaged in the production of material values in all branches of industry, transport and agriculture.

The following figures show the scope the training of personnel assumed towards the end of the second five-year plan period: in the 1937/38 academic year there were 547,200 students in the 683 institutions of higher learning, 862,500 in the 3,496 technical schools and other secondary educational establishments and 5.5 million people attending special personnel training courses.

The direct outcome of the increasing skill of the workers and large-scale introduction of machinery was the rapid growth of labour productivity in industry which rose 82 per cent instead of 63 per cent as planned. Never had the country known such high labour-productivity indices.

A big part in radically boosting labour productivity was played by the country-wide movement for the overfulfilment of daily output quotas. This raised socialist emulation to a new higher rung.

The movement was initiated by Alexei Stakhanov, a hewer at Central Irmino Pit in the Donets Basin. On August 30, 1935, he cut 102 tons of coal in a single shift, or 14 times the existing quota. Stakhanov's example was followed by other miners and then by workers in other industries, agriculture and transport. The Stakhanov movement, as it was called, swept the country. Among the first to follow Stakhanov's example were Pyotr Krivonos who started to drive heavily-loaded trains at higher speeds, Alexei Busygin, a forger at the Gorky Automobile Works, N. S. Smetanin, a worker of the Leningrad Skorokhod Shoe Factory, the Vinogradov sisters in the textile industry, and Praskovya Angelina, Maria Demchenko and Marina Gnatenko in agriculture.

The bourgeois press said that socialist emulation in the U.S.S.R. was a campaign for records and portrayed Stakhanov as a man of extraordinary physical strength.

Meanwhile, millions of Soviet people joined this movement. Its tremendous scope, popularity and great economic effectiveness were due to the following factors:

Firstly, to the socialist system of economy which had emancipated the working people from exploitation and created conditions for free labour;

Secondly, to the far-flung socialist re-equipment of the economy, without which such high indices of labour productivity would have been out of the question;

Thirdly, to the measures taken to prepare qualified personnel for all branches of the economy, and

Fourthly, to improved living standards.

These conditions made it possible to raise socialist emulation for the pre-schedule fulfilment and over-fulfilment of the second five-year plan targets to a still higher level. It was thanks to this that the second five-year plan was fulfilled by April 1, 1937, that is, in four years and three months.

The general indices showing the fulfilment of the plan are listed below.*

Key indices	1932	1937
Share of socialist sector in gross industrial output (per cent)	82.4**	99.8
Number of industrial and office workers employed (million men)	21.0	27.0
Investments in the economy in the first and second five-year plan periods in million rubles (in July 1, 1955 prices) .	64.9	147.6
Gross industrial output in million rubles (1926-27 prices)	4,226	7,344
Average annual rates of growth of gross industrial output in the first and second five-year plan periods (per cent)	19.2	17.1
Growth of labour productivity in industry in the first and second five-year plan periods (per cent)	41.0	82.0
Reduction in the cost of manufactured goods in the first and second five-year plan periods (per cent)	rise 2.3	10.3

* Compiled on the basis of statistical handbooks issued by the Central Statistical Board of the U.S.S.R.

** 1928.

Under the second five-year plan socialist industry made incomparably greater progress than in the preceding five-year period.

The slight decline in the average annual rates of growth of gross output, from 19.2 to 17.1 per cent, by no means indicated a drop in the absolute increase because 1 per cent in the second five-year plan period amounted to 950 million rubles, as against only 400 million in the preceding five years.

Construction in industry went on at an increasing rate. During the second five-year plan period 4,500 large state-owned industrial enterprises were put into operation, the biggest being the Novo-Tula, Novo-Lipetsk, Krivoi-Rog, Zaparozhye and Azov iron and steel works; the Urals and Kramatorsk heavy engineering plants; the Chelyabinsk tractor and the Kharkov turbine plants; and the Svir, Dubrovka, Kemerovo, Rioni, Kanaker and several other power stations.

It was then too that the Moscow-Volga and the White Sea-Baltic canals, the first section of the Moscow Underground, and other projects were commissioned.

Yet, the most characteristic feature of the period was the rapid growth of the productivity of labour and the decrease of production costs.

Suffice it to say that in the second five-year plan period increased labour productivity accounted for two-thirds of the rise in industrial output.

As for the quantitative growth of key industrial items, they are characterised by the figures on page 173.*

As in the first five-year plan period, attention was devoted chiefly to heavy industry and particularly to the development of engineering. In these years, the fixed production assets of the engineering and metalworking industries increased from 5,400 million to 14,700 million rubles, that is, by almost 200 per cent. Gross output in these industries rose at approximately the same rate (283 per cent in five years).

Towards the close of the second five-year plan period the Soviet Union had produced a sufficient number of motor vehicles, lathes, apparatuses and machines to meet

* *Narodnoye khozyaistvo SSSR. Statistichesky sbornik* (National Economy of the U.S.S.R. Statistical Handbook), Gosstatizdat, Moscow, 1956, pp. 55-58.

	1932	1937
Pig iron (million tons)	6.2	14.5
Steel (million tons)	5.9	17.7
Coal (million tons)	64.4	128.0
Oil (million tons)	21.4	28.5
Power (million kwh)	13,500.0	36,200.0
Mineral fertilisers (thousand tons) .	921.0	3,240.0
Metal-cutting lathes (thousand) . .	19.7	48.5
Motor vehicles (thousand)	23.9	199.9
Tractors (thousand)	48.9	51.0
Cotton fabrics (million metres) . .	2,694.0	3,448.0
Leather footwear (million pairs) . .	86.9	182.9

all its requirements, and had almost fully stopped to import them. This signified that the country had attained a level of economic development which completely freed it from dependence on other countries.

The rapid development of the engineering and metal-working industries was another factor of the completion of the technical reconstruction of the economy in the second five-year plan period. Towards its end, the enterprises newly built or entirely rebuilt during the first and second five-year plan periods were yielding more than 80 per cent of industrial output.

In these years the iron and steel industry overcame its lag and greatly stimulated the growth of the other industries.

Metallurgy likewise owed its successes less to the commissioning of new production capacities than to improved technical equipment and organisation of production.

It was in this period that the output of steel surpassed that of pig iron, a fact showing that the iron and steel industry had reached a higher level of development and that its structure had improved.

The power industry continued to expand at a rapid pace. With the commissioning of seventeen district electric stations and heat and power plants and eleven large hydro-power stations, the electrification of industry was in the main completed. Consumption of electricity per worker rose 100 per cent.

Substantial gains, though lesser than in the iron and steel and electric power industries, were registered by the fuel industry (coal, oil and peat).

Much attention was given to improving railway transport which was a weak spot in the general economic reconstruction scheme during the first five-year plan period. This was due to the neglected state of the tracks, outdated rolling stock and the absence of order and discipline in all its departments.

The government allocated about 17,000 million rubles, or 2.5 times as much as in the first five-year plan period, for the reconstruction of the railways, supplied them with powerful FD and SO locomotives, large-capacity freight cars, automatic coupling and so forth, reorganised their administration and carried out other measures.

These measures brought results and the five-year freight plan was fulfilled ahead of time. In 1937 the railways transported more than 2.5 times as much cargo as in 1932.

All other transport facilities—sea, inland, road, air and oil pipelines—were also improved and developed.

The light and food industries made good progress on the whole and the output of consumer articles increased twofold, primarily thanks to their technical renovation. Many new factories were built, especially in the national republics.

The government improved the siting of production forces by building engineering plants, iron and steel works, coal mines, oilfields, power stations and light industry and food factories in the East: the Urals, Western and Eastern Siberia, Bashkiria, the Far East, Kazakhstan and Central Asia. About 50 per cent of all investments in heavy industry went to finance capital construction in the Eastern regions. The biggest sums were spent to complete the construction of the Urals-Kuznetsk industrial complex, the Soviet Union's second iron and steel and coal base. In five years steel production in the Eastern areas increased fivefold (from 1.2 million to 6 million tons). Coal output in the Kuznetsk Basin rose from 7 to 18 million tons, and in the Urals from 3 to 8 million tons.

The erection of new and the reconstruction of old plants in Chelyabinsk, Nizhni-Tagil, Sverdlovsk and other cities gave the engineering industry in the East a new basis for its growth. New oilfields were opened in Kazakhstan. Non-ferrous metal extracting and processing enterprises in Siberia, the Urals and Kazakhstan were enlarged and re-equipped.

Successful industrial construction in the U.S.S.R. naturally did not mean that there were no difficulties and shortcomings. One difficulty, mentioned earlier in the book, was due to capitalist encirclement and the aggressive anti-Soviet activity of the imperialist states, which had forced the Soviet people to divert considerable resources and funds for defence purposes to the detriment of peaceful economic construction.

The mastering of new technique was also a difficult and involved process. The availability of up-to-date equipment was a new feature in the life of the country and the personnel that had been taught to operate primitive machines could not immediately master modern equipment.

There were certain other difficulties and shortcomings but they did not characterise the general level of industrial development. On the whole, the Soviet people performed an historic exploit in industry during the second five-year plan period. They built the economic basis of socialism, abolished bourgeois ownership in this branch of the economy and created conditions for giving people a secure and cultured life.

3. Consolidation of the Collective-Farm System and First Successes in Agricultural Production

During socialist construction in the U.S.S.R. the rates of agricultural development were naturally enough lower than those in industry. In the second five-year plan period this lag was due to specific historical factors.

Firstly, the U.S.S.R. had to channel the bulk of its means into the construction of industrial projects, primarily heavy industry enterprises, the basis for the development of the entire economy.

Secondly, many errors were committed in the management of agriculture. The actual state of affairs in this important branch of the economy was assessed from subjective positions and its development was planned without consideration for the existing economic and political conditions.

Despite all this, agriculture made definite headway all along principal lines: socialist reconstruction of the countryside on the basis of collectivisation; technical recon-

struction; organisational and economic strengthening of the state and collective farms and increasing agricultural production.

Collectivisation was completed. In 1932 the collective farms united 61.5 per cent of the peasant households and 77.7 per cent of the crop area, while at the close of the second five-year plan period the respective figures were 95 per cent and 99.1 per cent.

In 1937 there were 242,500 collective farms. The socialist system of agriculture also included 3,992 state farms (with a crop area of 12.4 million hectares) and 5,818 machine-and-tractor stations with 394,000 tractors, 127,200 combines and 74,600 lorries. Lenin's co-operative plan, elaborated at the beginning of the 1920s, thus became a reality. Once a land of small individual peasant economy, the Soviet Union became a country with the world's biggest collective agriculture.

Besides collectivisation, the second five-year plan envisaged thorough-going technical reconstruction of farming.

In addition to farm machinery at the machine-and-tractor stations, which cultivated 93.3 per cent of the total crop area of the collective farms, there were 84,500 tractors, 24,000 combines and 25,500 lorries at the state farms.

All this made it possible to mechanise the most labour-consuming jobs. The tillage of spring crop area was 71.5 per cent mechanised, 56.7 per cent of the spring crops were sown by machines, 48.4 per cent of the crop harvest was taken in with the help of machinery, and so forth. Stockbreeding, cultivation of industrial crops and horticulture were just beginning to be mechanised.

The organisation and economic consolidation of collective and state farms in the years of the second five-year plan were the principal factors in raising qualitative indices in agriculture.

Following an unexplored road in the elaboration of totally new forms of economic organisation in the countryside, the Soviet Union had to solve numerous complex problems connected with the organisation of labour, its stimulation, stock taking and distribution of farm produce. It was necessary correctly to combine socialisation with the personal subsidiary economy of the collective farmers, establish relations between collective farms and other socialist agricultural enterprises, and so on and so forth.

Organisational questions became still more urgent in view of the growing anti-socialist activity of the kulaks. Peasants in open battle in the process of mass collectivisation the kulaks changed their tactics and began to infiltrate into the collective farms, working their way to leading posts and conducting subversive activity from within.

In that difficult period for the collective farms the Party established political departments at all machine-and-tractor stations and state farms. Some 25,000 foremost Party members were assigned to these departments to conduct political and educational work among the masses, organise collective-farm activists, put an end to hostile kulak activity, and help consolidate the farms. The political departments functioned less than two years (1933-34) and were reorganised into ordinary Party organs after they had fulfilled their mission.

Of great importance in strengthening the collective farms economically and organisationally were the Rules of the Agricultural Artel adopted by the Second All-Union Congress of Foremost Collective Farmers in February 1935.

The new Rules summed up the experience of collective-farm development and absorbed all the best there was as basic principles for the organisation of the socialised economy of the artels. They specified the order of farm management and distribution of the produce, defined the system of labour organisation and set down other fundamental principles of collective-farm activity.

Proper co-ordination of the private and public interests of the collective farmers, the latter playing the dominant role, became one of the chief principles in the organisation and activity of an agricultural artel prescribed by the Rules.

During the second five-year plan period the problem of training personnel for agriculture became as important as it was for all the other branches of the socialist economy. It was necessary to select and train a large number of farm-machine operators, agronomists, stockbreeders and collective- and state-farm executives.

More than 1.5 million tractor drivers and combine operators were trained in this period.

A great deal was accomplished in this connection by the political departments of the machine-and-tractor stations and state farms. They took the initiative in selecting administrative personnel and in organising a ramified net-

work of schools, agricultural courses and study circles which prepared millions of agricultural workers. Higher educational institutions and technical schools prepared thousands of specialists.

The qualitative indices in agriculture are expressed in figures showing crop yields and the productivity of live-stock. If we take agricultural output in 1913 at 100 per cent we shall see that in 1928 it was 124 per cent, 1937—134 per cent, 1940—141 per cent.*

Towards the end of the second five-year plan the productivity of agriculture was approximately 33 per cent above the pre-revolutionary level. This initial success was primarily due to high farming methods. The crop area and the cattle population had by 1937 increased insignificantly over the pre-war level.

The table below shows the general trend of agricultural development during the second five-year plan period.

	1913	1928	1932	1937
Crop area (million hectares)	105.0	113.0	134.4	135.3
Gross yield of grain (million centners)	801.0	733.2	698.7	1,202.9
Yields of grain crops (centners per hectare)	—	7.9	7.0	11.5

Between 1932 and 1937 the crop area increased by one million hectares and the gross and per-hectare yields of grain rose 60-70 per cent. It has to be borne in mind, however, that weather conditions were exceptionally favourable in 1937. The average annual grain yields (both gross and per hectares) were, nevertheless, somewhat lower during the second five-year plan period.

The successes in stockbreeding were more modest.

Important progress was made in the development of industrial crops. The gross yield of sugar beet, for example, rose from 101.4 million centners in 1928 to 140 million in 1930 and then to 218.6 million centners in 1937; in 1928 the farmers picked 3.5 million centners of flax fibre.

* *Sotsialisticheskoye narodnoye khozyaistvo SSSR v 1933-1940 godakh* (Socialist National Economy of the U.S.S.R. in 1933-40), U.S.S.R. Academy of Sciences Publishing House, Moscow, 1963, p. 154.

whereas the average annual yields in the second five-year plan period were between 5.3 and 5.7 million centners; the 1929 cotton yield amounted to 8.6 million centners, while in 1937 it was 25.8 million centners.

The economic consolidation of collective farms is vividly illustrated by figures showing their incomes and the higher labour activity of collective farmers. The cash incomes of the collective farms increased from 4,600 million rubles in the first five-year plan period to 14,200 million rubles in the years of the second five-year plan.

Collective farmers had on the average 118 work-days to their credit in the first five-year period and 194 in the second.

Such are the general data showing the state of agriculture in the second five-year plan period. They sustain the basic conclusion that socialism provides broad opportunities for intensively developing this branch of the economy and radically improving the living standards of millions of agricultural workers.

4. Rise in Living Standards. Complete Victory of Socialism

The purpose of socialist production is to “*fully ensure the welfare and the free all-round development of all members of society*” (Lenin). Such is the requirement of the objectively operating fundamental law of socialism.

The fulfilment of this task, however, depends wholly on the constant growth of production. In the second five-year plan period there were incomparably more possibilities for meeting the steadily rising needs of the population.

Let us take a look at the principal index, the national income. In 1932 it amounted to 46,000 million rubles. Towards the end of the second five-year plan period (1937) the national income increased more than 100 per cent and added up to 96,000 million rubles (in prices of 1926/27).

The development of production and the growth of the national income made it possible to augment the ranks of the working class and the Soviet intelligentsia by 6 million people. Unemployment in the country, as we have already said, was wiped out in the initial stage of the preceding five-year period.

The same source provided funds for nearly doubling the wages of factory and office workers. The average annual wage of a worker increased from 1,434 rubles in 1932 to 3,005 rubles in 1937.

At the same time, the prices of all basic consumer goods were reduced.

The incomes of collective farmers mounted even more rapidly. The figure rose from 2,132 rubles per collective-farm household in 1932 to 5,843 rubles in 1937, that is, 170 per cent. The cash income alone increased by 350 per cent.

The shops were stocked with a great variety of consumer articles whose production had considerably expanded in the second five-year period. The output of granulated sugar, for example, rose almost 100 per cent, butter 160 per cent, sausages and smoked foodstuffs 390 per cent, knitted goods 300 per cent, bicycles 320 per cent, cameras 1,020 per cent, etc.

With the expansion of commodity circulation greater demands were made upon people engaged in trade. Private capital was completely ousted, and all commerce was concentrated in the hands of the state and co-operatives.

In 1935, as decided by the government, all trading establishments in the towns were placed under state control and in the countryside under the control of consumers' co-operatives which were also granted the right to purchase farm produce.

In that period there appeared a third form of Soviet trade—collective-farm trade—an unorganised market for the sale of goods privately owned by collective farmers. Here prices depended on the demand and supply. In socialist conditions this trade inevitably fell under state influence.

On the whole, commodity circulation in the second five-year plan period increased almost 200 per cent.

In 1935, as a result of the sharp increase in the output of manufactured goods and agricultural products, it became possible to abolish the rationing system and to switch over to free trade.

The government established fixed prices for all commodities and systematically reduced them during the second five-year plan period.

The abolition of rations and price reductions substantially improved living standards.

The people's well-being was also enhanced by the rise of wages and collective farmers' personal incomes as well as by bigger government allocations for social needs (housing construction, education, public health, and so forth).

In the second five-year plan period government outlays for cultural and welfare facilities rose from 8,300 million to 30,800 million rubles, or 270 per cent. The expenditure on housing alone amounted to 16,300 million rubles, making it possible to erect an additional 26.8 million square metres of floor space.

These and other government measures radically altered the living conditions in the country. There were better houses to live in, better clothes to wear, better food to eat.

Schools, polyclinics, theatres, cinemas and clubs were built everywhere, even in the most remote parts of the country.

Compulsory primary education was supplanted in towns by compulsory seven-year education.

Primary and secondary school enrolment increased by more than 8 million and the number of pupils in the 8th-10th forms 15-fold. The U.S.S.R. became the world's leading country in the number of higher and secondary specialised educational institutions and in the organisation of technical education for the workers.

The fulfilment of the political and economic tasks of the second five-year plan showed that the Soviet Union was consummating another historical stage in its development, that of building socialist society.

In the economic sphere this signified the creation of the socialist economy: powerful socialist industry, mechanised agriculture and a ramified system of Soviet trade. That put an end to poverty, crises and unemployment, and every Soviet citizen had the opportunity to lead a secure, cultured life.

In the social sphere it signified the elimination of the exploiting classes—landowners, industrialists, kulaks and merchants.

Two friendly classes were left in the U.S.S.R., the working class and the peasantry, with a stratum of toiling intelligentsia.

These classes underwent fundamental changes, too. The working class was very much different from the exploited proletariat of the tsarist times which was deprived of all

rights and the means of production. Collective farmers likewise could not be compared to the small peasants whom the kulaks and the landowners held in bondage. The new, numerous and active intelligentsia that emerged from among the working class and the peasantry also bore no resemblance to the bourgeois intelligentsia of pre-revolutionary Russia.

In the sphere of national relations the animosity and distrust that prevailed in tsarist Russia between the different nationalities gave way to a solid union of all the peoples of the U.S.S.R., to fraternal friendship between peoples jointly building socialism and communism.

All these changes testified to the establishment of a qualitatively new—socialist—system in the Soviet Union. The victory of socialism was recorded in the new Constitution adopted by the Extraordinary Eighth All-Union Congress of Soviets in December 1936. It proclaimed the U.S.S.R. a socialist state and made it clear that the Soviets of Working People's Deputies, to whom all power in the country belonged, were its political foundation and that the socialist economic system and ownership of the means of production were its economic foundation.

The new Constitution legislatively embodied all the gains made by the Soviet people in their fight for socialism.

5. Economic Development in the Pre-War Years of the Third Five-Year Plan Period (1938-June 1941)

The victory of socialism in the U.S.S.R. by no means signified that a whole range of socio-economic problems had been solved.

Characterising the inherent features of socialist society, Marx wrote: "What we have to deal with here is a communist society, not as it has *developed* on its own foundations, but, on the contrary, just as it *emerges* from capitalist society; which is thus in every respect, economically, morally and intellectually, still hampered with the birth marks of the old society from whose womb it emerges."*

* K. Marx and F. Engels, *Selected Works*, Vol. II, Moscow, 1962, p. 23.

In the period of socialist construction in the U.S.S.R. these birth marks of capitalism were especially manifest in the relatively low level of development of social production, making it impossible adequately to supply all members of society with material benefits. Certain inequality in the distribution of consumer goods still remained. The new, socialist relations of production in agriculture were not solid enough. The productivity of social labour had not attained the level conforming to the potentialities of the socialist system of economy, and survivals of private-property psychology persisted in the minds of the people for quite a long time.

These facts required that the Soviet people should concentrate on completing the construction of socialism. Therein lay the main distinguishing trait of internal political and economic activity in the years following the second five-year plan.

At the close of the 1930s the Soviet Union's international political situation underwent a radical change. In the autumn of 1937 the capitalist world was again swept by an economic crisis. Industrial output in 1938 was only 72 per cent of the 1929 level in the U.S.A., and not more than 70 per cent in France.

The crisis did not hit the most aggressive militarist states, Germany and Japan, because they had placed their economy on a war footing and were frenziedly building up their armed strength. With the connivance of the ruling circles in France, Britain and the U.S.A., Hitler launched out on his plan of establishing world hegemony. After the Austrian *anschluss* in 1938, Germany seized Czechoslovakia (1938-39), and in September 1939 unleashed a world war by attacking Poland. After Poland, German troops occupied Belgium, the Netherlands, Luxemburg, part of France, Denmark, Norway, Yugoslavia and Greece. The war was approaching the frontiers of the Soviet Union.

There was also a danger of war in the East, where the Japanese militarists, having captured extensive Chinese territories and Korea, kept a huge well-equipped army close to the Soviet frontiers and repeatedly provoked incidents on the Soviet and Mongolian frontiers. Having failed to get Britain, France and the U.S.A. to undertake collective measures to curb the aggressors, the Soviet Government in August 1939 accepted Germany's proposal for a non-

aggression pact. This step gave the U.S.S.R. a certain amount of time to prepare its defences and saved it from being drawn into a war on two fronts in conditions of complete isolation.

The reunion with the Soviet Union of the territories which had been wrested from it in the West was very important for its defence. In 1939-40, in accordance with the will of their peoples, the Western Ukraine, Western Byelorussia, Bessarabia and Northern Bukovina, Latvia, Lithuania and Estonia reunited with the U.S.S.R.

In view of the constant threat of a military attack the U.S.S.R. had to undertake measures sharply to increase its military and economic capacity and to shunt its economy on military rails as rapidly as possible.

These were the most important aspects of the internal and external situation in that period of Soviet economic development, and they naturally could not but influence the nature of the next economic plan for boosting economic growth.

The third five-year plan was also widely discussed by the Soviet people. It was adopted by the Eighteenth Congress of the Party, which considered all the suggestions made by the people, and then approved by the organs of state power.

The plan took into account the new political and economic problems confronting the country. In the economic sphere the principal task was to raise production to a level corresponding to the potentialities of the socialist system of economy.

In the preceding plan periods the Soviet Union had successfully utilised the advantages offered by socialism, made great headway in the expansion of production and substantially narrowed the gap between its level of production and that in advanced capitalist countries. In gross volume of production the U.S.S.R. had overtaken all European countries, but was still behind the U.S.A., Britain, France and Germany in per capita output.

The cardinal economic task, therefore, was to catch up with and surpass these countries in per capita production. This problem had been posed by Lenin on the eve of the October Revolution as a long-range programme for a socialist country and was made its immediate task after the victory of socialism.

The third five-year plan charted measures to further industrialisation, strengthen the collective-farm system, raise living and cultural standards and increase the defence capacity of the U.S.S.R. In 1942 industrial output was to be almost twofold as compared with 1937, and the sum of capital investments was to exceed the aggregate investments in the first and second plan periods by about 100 per cent.

Provisions were made to expand the defence industry and to build up large reserves of fuel, metal, electric power, etc.

It was planned to carry out extensive construction of duplicating enterprises in the Urals, the Volga area, Siberia and Central Asia, expand the coal and metallurgical base in the East, create an oil base between the Volga and the Urals, and develop a new grain-producing area in the eastern and southeastern parts of the U.S.S.R.

Another important problem was that of providing industry with skilled manpower. For this purpose the government in 1940 decided to establish a system of state labour reserves. The numerous trade and factory schools were to graduate between 800,000 and 1,000,000 skilled workers a year.

In conditions of mounting war danger, the accelerated development of certain industries demanded better labour discipline. In 1940 on the initiative of the U.S.S.R. Central Council of Trade Unions, the Presidium of the U.S.S.R. Supreme Soviet decreed the extension of the working day from seven to eight hours and of the work week from five to six days, with Sundays off.

The working people approved these measures by launching a mass-scale socialist emulation movement for the fulfilment of the third five-year plan ahead of schedule. Many new forms of emulation were devised (increasing the number of machines operated by a worker, introducing high-speed production methods, mastering several trades, competing in saving fuel, materials and power, reducing non-productive expenditures, etc.).

Industrial output increased substantially in the three and a half years ending June 1941. In this period the average annual rates of growth were never below 13 per cent, while in the defence industry they came to 39 per cent. Considering that now one per cent stood for much more than in the second five-year plan period, the successes

achieved in industrial development are more obvious still. Three thousand new industrial enterprises (not counting enterprises of local importance) were commissioned in these years.

Nevertheless, the industrial projects built during the third-plan period were smaller than the giants which rose in the preceding decade.

In accordance with the plan, the U.S.S.R. concentrated mainly on the construction of medium and small power stations, mines and other enterprises, for that made it possible to speed up construction and accelerate the expansion of productive capacities.

In the three and a half pre-war years industrial output on the whole rose 52 per cent and labour productivity 33 per cent.

Great headway was made in the development of the defence industry which in those years provided the armed forces with the excellent IL-2, PE-2, YAK-1 and MIG-3 planes, T-34 and KV tanks, and many types of guns and small arms. The accelerated development of the defence industry naturally caused a certain decline in the output of other industries which had been rapidly growing in the past decade. Accordingly, the output of pig iron in 1937 amounted to 14.5 million tons and in 1940 to 14.9 million tons; the corresponding figures for steel were 17.7 and 18.3 million tons, rolled metal—13 million and 13.1 million tons, oil—28.5 and 31.1 million tons, cement—5.5 and 5.7 million tons.

The output of engineering on the whole (including the metalworking industry) rose 76 per cent.

As in the preceding years, a great deal of effort was concentrated on boosting production in the eastern parts of the country. In the first three years of the third five-year plan period industrial output in the Volga area, the Urals, Central Asia, Kazakhstan and Siberia increased 50 per cent.

Since 1940 was the last pre-war year, it might be interesting to compare the level of industrial development which the Soviet Union had attained by then with that of 1913, the last year of tsarist Russia's peaceful economic development. Between 1913 and 1940, gross industrial production and the output of the goods determining a country's military and economic potential had increased several fold.

Gross industrial output increased by 750 per cent; pig-iron production rose 250 per cent, steel—330 per cent, rolled metal—270 per cent, coal—470 per cent, oil—230 per cent, power—2,400 per cent, and engineering output—3,400 per cent.

The gains in agriculture were more modest and there were still enormous possibilities for making better use of socialist farming. The process of strengthening the socialist economy in the countryside continued. This is best illustrated by the fact that in 1940 there were 683,800 tractors (in terms of 15 hp) and 182,000 grain combines in the fields.

One of the organisational measures taken then to strengthen collective farms was the change in the delivery and purchase of agricultural produce. The old system of assessing the deliveries on the basis of the sown area and the number of cattle was supplanted by one under which the amount of compulsory deliveries was calculated per hectare, that is, for the entire sown area owned by a collective farm. The same principle was applied to estimating the deliveries of livestock products. This measure stimulated better utilisation of collective-farm land and all-round development of stockbreeding.

The expansion of the crop area in the eastern regions was another important undertaking. In 1941 the sown area in the Volga area, the Urals, Siberia and Kazakhstan added up to about 50 million hectares, whereas before the revolution it was slightly over 30 million hectares. This measure was fully appreciated during the Great Patriotic War when a large part of the country's European territory was occupied by the enemy.

The above-mentioned measures reinforced the collective farms organisationally and economically and were to some degree instrumental in raising their productivity. Nevertheless, there was obviously no cause for complacency, nor for thinking that the grain problem had been solved.

Incidentally, in those days the statistics on crop capacity were exaggerated, for what they called gross yield was not the collected grain but the uncut crop whose amount was determined on the basis of the arithmetic mean.

On the whole, the growth of grain output lagged behind the expansion of the crop area.

Stockbreeding was still making insignificant headway.

It follows from the above that the problem of intensifying agriculture was yet to be solved.

Nevertheless, criticism of the shortcomings in Soviet agricultural development on the eve of the Second World War could not wipe out the major gains in this previously chronically backward branch of the economy after its reorganisation along socialist lines. In 1940 the country harvested 5,830 million poods of grain, exceeding the 1913 figure by about 11 per cent; the pig population increased by 4.5 million, and there was considerable increase in the yield of all industrial crops.

Especially noteworthy is the fact that the socialist reorganisation of agriculture sharply enhanced its marketability. The socialist system, which had become firmly established in the countryside, supplied the country with all the farm produce it needed in peacetime and particularly during the war.

In the peace years of the third five-year plan transport was intensively developed, commodity circulation substantially expanded, and the living standard tangibly raised.

Towards the close of the second five-year plan period the U.S.S.R. had 84,900 kilometres of railways and in 1940 this figure reached 106,100; retail trade rose from 143,700 million rubles in 1937 to 175,100 million rubles in 1940.

The national income increased from 96,300 million to 128,000 million rubles. The payroll in this period rose approximately 50 per cent. Government allocations for social and cultural needs in 1940 were 16 per cent above 1938. In 1940/41 academic year there were more than 35 million children going to school and over 800,000 studied at institutions of higher learning.

The pre-war years of the third five-year plan were thus years of continued successful upbuilding of the socialist economy. The country built up its military and industrial potential which later brought it victory over the nazi invaders in the Great Patriotic War.

Chapter VIII

U.S.S.R. ECONOMY IN THE PERIOD OF THE GREAT PATRIOTIC WAR OF 1941-45

1. Germany's Perfidious Attack. The Character of the War, Its Outcome and Significance

At 3.30 a.m. on June 22, 1941, without declaring war, nazi Germany invaded the Soviet Union. The wanton attack was made with 190 divisions, of which 153 were German, over 3,500 tanks and 5,000 aircraft.

The war disrupted the peaceful labour of the Soviet people and ushered in a new stage in their lives—that of defending their country and liberating the peoples of Europe from the nazi enslavers.

The Great Patriotic War of the Soviet Union against nazi Germany was the most important and decisive part of the Second World War of 1939-45.

Unleashed by Germany and her allies in 1939, the Second World War was in every respect an aggressive war waged to establish world hegemony and enslave the peoples. The U.S.S.R. and the peoples who were attacked by the fascist states were waging a just war of liberation.

The war acquired its just and liberation character especially after the Soviet Union was drawn into it. The U.S.S.R. was fighting not only for its own freedom and independence as a nation and a state, but also for the independence of other nations and to uphold the gains of socialism, the world's most advanced social system and the bulwark of all the progressive forces.

In the quarter of a century of Soviet rule, the people of the U.S.S.R. not only changed the social system of their country but completely reorganised its economy.

In these years they built 9,000 new large industrial enterprises, increased the output of the means of production by 1,240 per cent and the output of consumer goods by 360 per cent. Gross agricultural output had also increased since 1913.

The U.S.S.R. became a great industrial power, ranking first in Europe and second in the world in the volume of industrial production.

The production of the key items determining its military and industrial potential developed as follows (in million tons).*

	1913	1940	1940 (per cent of 1913)
Pig iron	4.22	15.0	355
Steel	4.23	18.3	432
Coal	29.0	166.0	572
Oil	9.0	31.0	344
Marketable grain. .	21.6	38.3	177
Raw cotton	0.74	2.7	365

The total length of railways increased from 58,500 kilometres to 106,100 kilometres, and the rolling stock park received 12,000 powerful engines and more than 500,000 freight cars.

Living standards changed radically. Poverty, unemployment, ignorance became things of the past. The national income in 1940 surpassed the pre-revolutionary figure by 500 per cent.

Such was the situation in the Soviet Union on the eve of Germany's invasion.

The initial period of the war proved to be unfavourable for the U.S.S.R. This was due to a number of reasons. Firstly, Germany's attack came as a surprise. Her army had acquired considerable military experience by that time, and the suddenness of the attack made her temporary superiority all the greater.

Secondly, Germany had long since placed her economy and the economies of her satellites on a war footing,

* *Ocherki istorii Velikoi Otechestvennoi Voiny 1941-1945* (Essays on the History of the Great Patriotic War 1941-45), 1955, pp. 13-28.

whereas the U.S.S.R. began to convert its industry to war production only after the outbreak of the war.

Thirdly, the danger of a Japanese attack in the East prevented the U.S.S.R. from concentrating the maximum armed forces in the West. Germany, on the other hand, hurled against the U.S.S.R. not only the bulk of her Wehrmacht but a considerable part of the armed forces of her allies, Finland, Hungary, Rumania and Italy.

Despite the staunch and valiant fight put up by the Soviet Army, the enemy forces had in the summer and autumn of 1941 overrun a substantial part of the U.S.S.R. and dealt a severe blow to its economy and armed forces. By November 1941 the Germans had seized the Baltic states, Byelorussia, Moldavia and large portions of the Ukraine and Karelia. The front ran close to Leningrad, Moscow, Tula, Kharkov and Belgorod.

The territory occupied by the enemy accounted before the war for 40 per cent of the country's population. It produced 63 per cent of its coal, 58 per cent of steel, 38 per cent of grain and 84 per cent of sugar beet, had more than 40 per cent of the railways, and so forth.*

As a result of the enemy occupation of a number of very important industrial centres and the evacuation of many industrial enterprises to safe areas, industrial output had by the winter of 1941 fallen by 50 per cent as compared with 1940.

The greatest decline in output was registered at the close of 1941. Beginning with March 1942 industrial production began to mount rapidly. The enterprises removed East were back into operation.

Checking the German advance into the hinterland, the Soviet people hastily rebuilt the entire economy to meet the needs of the front and facilitate victory over the enemy. It was necessary to convert production capacities to war production, switch the material resources of agriculture from peaceful to military rails, reorganise transport, speed up the construction of military installations, accelerate the training of new personnel to replace the drafted skilled workers, place the budget and the money system at the

* N. A. Voznesensky, *Voyennaya ekonomika SSSR v period Velikoi Otechestvennoi Voyny* (The Military Economy of the U.S.S.R. in the Period of the Great Patriotic War), 1948, p. 42.

service of the front, and remodel the work of the government apparatus and the entire system of economic planning.

At the same time, the country was mustering its forces for the first powerful blows at the nazi invaders near Moscow, Tikhvin and Rostov.

After smashing the enemy shock forces at Moscow, the Soviet Army went over to the offensive, which lasted from December 1941 to February 1942, and advanced more than 400 kilometres, clearing the Moscow and Tula regions and recapturing parts of the Kalinin, Leningrad, Orel and Smolensk regions. It was the first serious defeat the Germans had suffered in the Second World War and completely dissipated the myth about the Wehrmacht's invincibility.

Meanwhile, the Germans deployed forces for an offensive in the relatively narrow southern sector of the front along the Donbas-Don-Caucasus-Stalingrad line. Here they massed an assault group of 69 infantry, 10 panzer and 8 mechanised divisions. The initial phase of the war (June 1941-November 1942) came to an end with the Soviet troops fighting heavy defensive battles in the summer and autumn of 1942.

The second phase began on November 19, 1942, when the Soviet forces began to encircle the 330,000-strong German army at Stalingrad. While Paulus's group was being decimated at Stalingrad, the Soviet Army mounted a counter-offensive in the direction of the Donets Basin, in the North Caucasus and on the Northwestern front (Veli-kiye Luki and Rzhev). The enemy was also defeated south of Lake Ladoga, this leading to the breaching of the blockade of Leningrad which had lasted for many months.

When the winter campaign came to an end in March 1943, the Soviet troops had liberated the North Caucasus, the Voronezh, Stalingrad, Rostov and Kursk regions and parts of the Donbas and the Smolensk, Orel and Kharkov regions.

The Germans were flung 600-700 kilometres to the west of the Volga and the Terek, and their mass expulsion from Soviet territory was on its way.

The great battle on the Volga was the turning point in the Second World War. It stimulated the anti-nazi struggle of the enslaved European peoples, forced Turkey and Japan to reconsider their commitments to Germany and refrain from joining the war against the Soviet Union,

and tremendously enhanced the role of the U.S.S.R. as the leading force of the anti-Hitler coalition.

In the summer of 1943 the Germans made a futile attempt to launch an offensive in a small sector of the front in the vicinity of Orel and Belgorod.

The German drive which started on July 5 was stopped several days later and the Soviet Army went over to a vigorous counter-offensive. By the end of the year about 50 per cent of the occupied territory had been liberated. Following the victory at Kursk and their advance to the Dnieper, the Soviet troops dealt the enemy repeated blows completely liberating Soviet territory and the occupied European countries and ending by utterly defeating Nazi Germany. In this period the Soviet Union rapidly increased its economic might and this was accompanied by the quantitative and qualitative growth of war production.

Nazi Germany was defeated mainly thanks to the efforts of the Soviet Union, to the heroic fight put up by its armed forces and the entire people.

The Soviet Union's allies opened the second front in the West only in June 1944, although it had been agreed by the U.S.S.R., Britain and the U.S.A. early in the war that it would be opened in 1942. There was no second front in 1942, 1943 or even the early half of 1944. When it was finally opened, Soviet troops were already fighting on the Western frontier of the U.S.S.R., and having crossed the Siret in the south, had entered Rumania. The Western Allies thus landed in Europe only after it had become clear that the Soviet Army would smash Germany without their help.

Senator Truman, who was later to become President of the United States, made no bones about the policy the Allies were pursuing at the time. He said: "If we see that Germany is winning we ought to help Russia and if Russia is winning we ought to help Germany, and that way let them kill as many as possible."

Ridding the world of the Nazi plague, the Soviet people were fulfilling their world historic mission. The Soviet Army, supported by the peoples of the occupied countries, liberated Poland, Czechoslovakia, Yugoslavia, Bulgaria, Rumania, Hungary, Austria and the northern part of Norway, and helped throw the Nazis out of France, Italy and other European countries.

On May 8, 1945, representatives of the German High Command signed an act of unconditional surrender, which signified that the Hitlerite regime in Europe had collapsed, that the enslaved peoples of this continent had been liberated and world culture and civilisation saved.

A few months later the Soviet Army routed the Japanese forces in the northeastern provinces of China and in North Korea. With her main land force—the Kwantung Army—smashed, imperialist Japan on August 14, 1945, also unconditionally surrendered. This marked the end of the Second World War.

The victory of the Soviet Union in the Great Patriotic War considerably weakened the world capitalist system. The socialist revolutions in some European and Asian countries resulted in the abolition of the capitalist system there and the establishment of the system of people's democracy. There emerged a powerful world socialist system.

The victory over fascism and the resulting aggravation of the general crisis of capitalism produced an unprecedented upsurge of the national liberation struggle in the colonies and dependent countries.

Such is the general historic significance of the Soviet Union's victory in the Great Patriotic War of 1941-45.

2. Mobilisation of Industry for War Production

The war interrupted the third five-year plan of economic development, and confronted the Soviet Union with new tasks. The plan for peaceful economic development for the third and fourth quarters of 1941 and for the whole of 1942 was supplanted by a military-economic plan which provided for the evacuation of industrial enterprises to safe regions in the East, all-round increase in war production, radical change in the pattern of the state budget, and so forth.

In order to meet the new conditions, the entire system of economic management was rebuilt on the basis of strict centralisation. The Presidium of the U.S.S.R. Supreme Soviet, the Party's Central Committee and the Council of People's Commissars jointly decided to form the State Defence Committee and invested it with supreme power. To guide military production several additional People's

Commissariats were set up, including the Commissariats for the Tank Industry, Mortar Industry and Munitions. To make administration more effective many central and local organs of power were granted broader rights.

One of the most urgent tasks was the removal of industrial enterprises and certain other important establishments from the Western regions to safety in the Urals, Siberia and Central Asia.

The war made the re-siting of thousands of enterprises extremely difficult. Despite the shortage of manpower and transport facilities, often under artillery fire and aerial bombardment, more than 1,300 large enterprises of defence importance, including the Kharkov Tractor Plant, the Novo-Kramatorsk Heavy Engineering Works, the Lugansk Locomotive Works, and the equipment of the Dnieper Hydropower Station, were evacuated to the East.

No less difficult were the conditions in which the people had to reassemble the evacuated plants. There were no factory shops, dwellings, spur-tracks, fuel or electric power resources.

People had to work in the open in rain and cold. Alexander Werth wrote in *Russia in the War of 1941-45* of the staunchness of workers who had to walk seven and even ten kilometres in the Siberian frost, work for 12, 14 and even 15 hours at factories that had been evacuated to the East, and then make their long walk back home, day after day and month after month.

The greater part of the plants had been removed by the end of 1941, and by the spring of 1942 they were all operating again.

As a result, it became possible to halt the decline of production and in the summer of 1942 to raise it to a level enabling the country substantially to expand the output of war materiel. In the latter half of 1942 the Soviet Army received incomparably more supplies than in the first six months, to say nothing of the end of 1941. In December 1942 the country produced 230 per cent more of aircraft than in December 1941. The increase in submachine-guns was 440 per cent, tanks—almost 100 per cent, tank diesels—360 per cent, bombs—530 per cent, etc.*

* G. G. Morekhina, *Rabochy klass frontu* (The Working Class to the Front), 1962, p. 263.

The Urals and other Eastern regions became the main arsenal of the Soviet Army. They also accounted for the greater part of metal and the raw materials used in arms production.

In the last three months of 1941 the Urals gave 62 per cent of the country's pig iron, nearly 50 per cent of steel, over 50 per cent of rolled metal and copper, 100 per cent of aluminium, magnesium, nickel, cobalt, etc.*

Beginning with the spring of 1942 the Soviet defence industry steadfastly increased output. This was one of the distinguishing features of the socialist system of economy which made it possible to mobilise all resources to defeat the enemy.

In 1943 gross industrial production increased by 17 per cent. This growth was made possible not only by expanding production at the old plants but by the construction of new enterprises. Government investments in industry rose from year to year. In 1943 the state allocated 13,000 million rubles for capital construction, in 1944—18,900 million rubles. In 1942, 1943 and 1944 the government invested about 79,000 million rubles.

No fewer than 2,250 large industrial enterprises were built during the war. Beginning with 1943 production capacities expanded thanks to the rehabilitation of enterprises situated in areas liberated from the enemy. For this purpose the government in 1943 and 1944 allocated 16,000 million rubles, or 30.5 per cent of the capital invested in the national economy.

This was enough to finance the rehabilitation of no fewer than 6,000 enterprises in the liberated areas. They included power stations with a total capacity of one million kw, 1,047 large and small coal pits yielding 44 million tons of coal annually, 13 blast-furnaces with an annual capacity of 2.3 million tons of pig iron, 70 steel furnaces producing 2.8 million tons of steel a year and 28 rolling mills with an annual capacity of 1.7 million tons of metal.

Thanks to the valiant efforts of the Soviet people gross industrial output in 1945 rose to 92 per cent of the pre-war 1940 level. During the war industries producing the

* *Istoriya Velikoi Otechestvennoi Voiny Sovetskogo Soyuz 1941-1945 godov* (History of the Great Patriotic War of the Soviet Union of 1941-45), Vol. II, p. 155.

means of production had even increased output by 12 per cent, while the engineering and metalworking industries raised it by 29 per cent. But the bulk of industries were turning out war materiel. In the last three years of the war the U.S.S.R. annually made about 40,000 aircraft, more than 30,000 tanks and self-propelled guns, up to 120,000 artillery pieces, 450,000 machine-guns, 100,000 mortars, about 5 million rifles and submachine-guns, hundreds of millions of shells and thousands of millions of rounds of small arms ammunition.

The output of consumer goods in 1944 was 54 per cent of the pre-war level. Moreover, the bulk of food supplies, clothes and footwear was sent to the armed forces.

The steady rise of labour productivity was an important factor of the growth of industrial production. In their effort to keep the front fully supplied with everything it needed, the workers, technicians, engineers and scientists found new ways for increasing output. A big role was played by the mass movement for the overfulfilment of production quotas and improvement of quality.

There appeared many new forms of socialist emulation. On February 12, 1942, D. F. Bosy, a milling-machine operator from Nizhni Tagil, exceeded his quota by 1,380 per cent and initiated the movement for 1,000 per cent increase in output. Urals steelworkers Alexei Sorokin and Narrulah Bazetov initiated a competition for high-speed smelting.

At the beginning of 1942 Young Communist League members launched a competition for the right to be called a "front-line" team. Their motto was: "An order for the front is a military assignment." In May 1942 they were joined by the workers of the metallurgical, aircraft and tank industries, railwaymen, textile workers and other industrial workers. The competition became nation-wide.

Subsequently, this competition spread from industry to transport, agriculture and the non-production spheres.

The carefully elaborated system of mass training of personnel was largely instrumental in raising labour productivity. Millions of men, the most able-bodied section of the population, were called up. Part of the population could not be evacuated and remained on the territory occupied by the enemy. The total number of industrial and office workers in 1943 was 38 per cent below the 1940 figure.

There were also big changes in the composition of industrial personnel. The number of men workers and employees declined sharply and that of women and adolescents below 18 years of age increased. Before the war women accounted for 38 per cent of the factory and office workers. At the outset of the war they made up 53 per cent, and the number of adolescents increased from 6 to 15 per cent.

The ranks of the working class were replenished primarily by unskilled labour from the countryside. Part of the urban able-bodied but non-working population was also drawn into production. In conformity with the decree of the Presidium of the U.S.S.R. Supreme Soviet of February 13, 1942, a section of the able-bodied urban population that had never before produced material values were mobilised for work at industrial enterprises.

This mass of newcomers had to be rapidly trained. One way to do it was to put young workers in the charge of old-timers and foremost industrial workers. In addition, production training courses and short-term schools for improvement of professional skill were opened at factories. The ranks of skilled workers were largely replenished by graduates from factory apprenticeship and vocational schools that were set up before the war.

In conditions of war, when the fate of the socialist state was at stake, it became necessary to lengthen the working day, introduce compulsory overtime and cancel annual holidays.

All defence industry personnel were declared mobilised. In other words, their work was equated to a military assignment. Accordingly, they were assigned to an enterprise and could not leave it without permission.

The desire to increase production in conditions of war stimulated the growth of technical level. In those years defence industry enterprises received high-efficiency machines, machine-tools and equipment. The mass line production method saved a great deal of time in the manufacture of parts and sections for tanks and aircraft. The free forging of tank parts was almost completely substituted by the more efficient stamping method. Thermal treatment of sections with high-frequency electric current was applied on a broad scale. Automatic welding of armoured plates was introduced in welding, combined and

secondary distillation in oil refining and, the electrolytic method in the production of manganese.

Between 1942 and 1945 labour productivity in industry increased by more than 40 per cent, and output per worker in the metalworking industry, for example, rose 80 per cent. This made it possible to supply the Soviet Army with increasing amounts of up-to-date equipment. At the beginning of the war, the German forces were better equipped than the Soviet Army, but towards the end, the Soviet Union had complete supremacy.

In the last battle for Berlin, the Soviet Army employed 41,000 artillery pieces and mortars, more than 6,300 tanks and 8,400 aircraft.

No other country had anything to match the T-34 tank, the jet-mortar BM-13 (*Katyusha*), the IL-2 assault aircraft, and many other weapons.

The Soviet Union not only defeated the imperialist and reactionary forces but scored an economic victory, thus concretely demonstrating the superiority of the socialist system of economy over that based on private ownership of the means of production and on exploitation.

3. Situation in Agriculture and the Problem of Food Supplies

Agriculture in the U.S.S.R. had undergone important changes before the Great Patriotic War. The collective-farm system had taken firm root throughout the country. The collective and state farms had grown stronger; all collective farms were serviced by machine-and-tractor stations.

At the end of 1940 there were 4,159 state farms in the country, 235,500 agricultural artels and 7,069 machine-and-tractor stations. Individual peasant farming was practically non-existent.

New machines, advanced farming methods and the socialist system of labour organisation had brought about an increase in grain yields and raised animal productivity. Gross agricultural output in the Soviet years had almost doubled.

The produce of socialist agriculture is highly marketable, a factor which proved to be of immense significance

during the war. The following comparison illustrates this point. During the First World War state purchases of grain in Russia in 1914-17 amounted to 1,399 million poods, while the figure for the first three years of the Great Patriotic War (1941-44) was 4,264 million poods.

In the pre-war years the socialist state promoted the development of grain production in the Eastern areas in every possible way. In 1940 they grew 1,838 million poods, as against 1,034 million poods in 1913.

This played an important role in the accumulation of food reserves before the war and their replenishment during it.

The enemy occupation of extensive areas dealt a serious blow to agriculture.

With the Ukraine, the North Caucasus, the Don area, the Crimea, Kuban, Byelorussia, Moldavia, the Baltic countries and several central regions occupied by the enemy, the U.S.S.R. lost 40 per cent of its sown area, 107,000 collective farms and 3,000 machine-and-tractor stations. The Germans destroyed or shipped home 137,000 tractors, 49,000 combines, 17 million head of cattle and 20 million pigs.

The call-up of millions of men decreased manpower at collective farms by 44 per cent.

The army took over a considerable part of tractors and lorries and many horses. The delivery of machines, spare parts and fuel to farms was sharply curtailed.

During the war the government made strenuous efforts to develop farming and stockbreeding in the Eastern regions with the result that the crop area in those parts increased by 5 million hectares in 1942 and by 6.4 million hectares in 1943. Farmers in Kirghizia and Uzbekistan began to cultivate sugar-beet for the first time in history and enlarged the area under potatoes and other vegetables. Kazakhstan and all the Central Asian republics launched large-scale construction of irrigation projects and power stations. Despite the difficult war conditions, the government allocated substantial funds for the construction of tractor plants in Altai and in Vladimir and a combine works at Krasnoyarsk.

Political departments, which had done so much to strengthen the collective farms organisationally and economically, were reinstituted at machine-and-tractor

stations and state farms. They helped start a mass socialist emulation movement to expand agricultural output and raise labour productivity. Hundreds of thousands of young collective farmers working in 64,000 youth teams took part in it.

The shortage of labour created serious difficulties in agriculture. The men who had joined the armed forces were replaced with women and young people and even with old folk who had stopped working before the war. The collective and state farms and machine-and-tractor stations opened courses for machine operators and production organisers (team leaders and collective-farm chairmen). Some two million tractor drivers, combine operators and mechanics were trained, and 70 per cent of them were young people.

The number of women farm-machine operators rose sharply in those years. In 1940 only four per cent of tractor drivers were women, and in 1942 they accounted for 45 per cent; the percentage of women combine operators increased from 6 to 43 per cent, and women lorry drivers from 5 to 36 per cent.

In the war years, collective farmers, like workers, displayed great labour heroism, thus largely contributing to victory. By the latter half of 1943 the most serious difficulties in agriculture had been surmounted and it entered a period of rehabilitation which went on exceptionally fast after the liberation of the occupied regions in the West. The war was still on when 85,000 collective farms, 1,800 state farms and nearly 3,000 machine-and-tractor stations resumed their work and began to supply armed forces and the country with food. In 1944 the country received 1,100 million poods of grain more than in the preceding year.

In 1945 the government allocated 9,200 million rubles for restoring agriculture, or about 33 per cent more than in 1944. It received 6,500 tractors, 9,900 lorries and 628,000 tons of mineral fertiliser.

Gross grain output in 1945 was 2,882 million poods. Compared with 1943, the livestock population increased as follows: horned cattle by 15.8 million head, sheep and goats by 8.4 million, pigs by 2.8 million, and horses by 1.7 million head.

Naturally, this did not signify that agriculture had fully recovered from the damage caused by the nazi invaders. It

required many years of hard work before the crop area was restored and gross grain yields and the livestock population reached their pre-war level. Great sums had to be invested and enormous effort put in to restore and enlarge the farm machinery fleet and its repair workshops.

Nevertheless, during the war socialist agriculture uninterruptedly supplied the armed forces and the country with food and agricultural raw materials. The collective-farm system emerged from the war test with flying colours. It not only proved its viability but also showed that it was enormously superior to any non-socialist system of economy.

The problem of food supply was directly connected with the development of agriculture. The war made it imperative strictly to centralise all food resources in the country and to distribute them in accordance with a carefully elaborated system.

This was achieved by enforcing a centralised system of rationing food and the principal consumer goods. Under this system, which remained in force throughout the war and was differential in character, the biggest rations were issued to Soviet Army men and officers, defence industry workers and those employed in other key industries. Increased rations were given to people whose work was heavy or harmful and also to foremost workers. Additional supplies were given to pregnant women, nursing mothers, children and scientists. In the countryside rations were issued to teachers, doctors and all other people who were not engaged in agriculture.

All told, some 77 million people were issued rations during the war.

Lunchrooms, canteens, cafés and other public catering establishments played a very important part and their share in the retail trade turnover increased almost twofold, from 13 per cent before the war to 25 per cent in 1943.

To ensure additional supplies for the working people Workers' Supply Departments were set up at enterprises. They were allotted land, purchased farm tools and grew potatoes and other vegetables which were distributed among the people employed at a given establishment.

The government encouraged the cultivation of individual kitchen gardens, and for this purpose allotted plots in the

suburbs to industrial enterprises and institutions where people could grow vegetables for personal consumption. It also helped people to purchase seeds, till the land and transport the harvest.

To prevent the real wages from falling, the government maintained fixed prices for foodstuffs and manufactures throughout the war, thus ensuring the stability of working people's budget.

In 1944 there appeared greater possibilities for increasing commodity circulation and the government opened a network of commercial shops in towns where commodities were not rationed but sold at higher prices. This measure allowed part of the population to purchase additional supplies and the state to accumulate funds for the needs of the economy.

The free collective-farm market, which functioned alongside the state trade system during the war, likewise helped improve the supply of the population. In contrast to the prices in state and co-operative shops, those in the collective-farm market fluctuated along with the demand and supply. Since there was a shortage of goods, they rose sharply during the war.

A rather important role in the general balance of the Soviet wartime economy was played by imports, primarily deliveries by the Allies. In this period Soviet exports were drastically curtailed. The following figures show the state of Soviet import-export trade in the first three years of the war. Imports: 1940—1,446 million rubles, 1942—2,756 million rubles, 1943—8,460 million rubles; exports: 1940—1,412 million rubles, 1942—399 million rubles, 1943—373 million rubles.*

In these years imports rose 400 per cent and exports fell by nearly 67 per cent.

Proceeding from these figures, some bourgeois historians claim that the Allies had just about saved Russia from "certain extinction" in the Great Patriotic War. But a comparison of the amount of their deliveries with the Soviet needs discloses that they were merely a drop in the ocean. The supplies delivered by the Allies during the war

* N. A. Voznesensky, *Voyennaya ekonomika SSSR...* (The Military Economy of the U.S.S.R. ...), 1948, p. 74.

amounted to four per cent of the Soviet Union's gross product in this period.

An unbiased examination of the state and development of trade and supply in the U.S.S.R. in the war years leads to the sole objective conclusion that in the extremely difficult war conditions the Soviet Union mustered all its efforts and successfully solved both the problem of defence and the problem of supplying the population.

4. Wartime Transport

As a result of the fulfilment of the pre-war five-year plans railway transport in the U.S.S.R. had made substantial headway. The operational length of the railways just before the war was almost double that of 1913; the freight turnover had increased by 530 per cent, and the rolling stock had considerably expanded.

After the outbreak of the war the amount of transported cargo swelled tremendously and the carrying capacity declined. In addition to ordinary freight and passenger traffic, it was necessary to ensure transportation of war materiel, evacuate industrial enterprises and millions of people, organise communications with the new defence industry plants in the East, and so forth.

The enemy destroyed large sections of railways and many junctions. In 1941-42 the Germans dropped over 400,000 tons of bombs on key transport hubs. A large section of railways was situated in the occupied territory.

The total length of railways in 1943 decreased by 40 per cent since 1941, the number of locomotives diminished by 15 per cent and that of freight cars by 20 per cent. The average daily carrying capacity dropped by more than 50 per cent.

In the early phase of the war (1941-42), the main job assigned to transport, particularly the railways, was to keep the armed forces supplied with everything necessary and to evacuate industrial enterprises into the hinterland. All army transport facilities and a large part of the ordinary rolling stock were used for this purpose.

This mass of transport, people, military equipment, food and uniforms moved westwards, while other cargoes—dismantled factories, collective- and state-farm property—

and millions of people moved in the opposite direction. In the latter half of 1941 alone the railways carried 1.5 million carloads of freight to the Urals and Siberia.

It was necessary to reorganise the work of the railways and place them at the service of the front. The rail transport thus became an integral part of the military economy. Railway personnel were considered a military contingent and subject to army discipline; railway traffic was under army control. Trains carrying military cargo were given the green light.

These measures played an immense role in strengthening discipline and maintaining order in this important branch of the economy, helped overcome the difficulties of the first war years and fulfil the tasks it was entrusted with.

The demands imposed on rail transport in the second period of the war (end of 1942 and 1943) were just as difficult. It became necessary to establish better economic communications within the country, keep the advancing Soviet Army supplied with everything it needed and restore the industrial enterprises and railways in the liberated areas.

Nineteen thousand kilometres of railway tracks were restored in 1943. The rolling stock was replenished with 2,000 locomotives and 56,000 carriages. The average daily freight turnover rose by approximately 3,000 freight cars.

The government was as yet not in a position to invest large sums in the rehabilitation and development of transport. Improved work on the railways was mainly the result of the selfless efforts of their personnel. Here, too, people took part in the mass emulation movement for higher labour indices.

Nikolai Lunin, one of the initiators of this movement, went to work as a locomotive fireman at the age of 17, upon graduating from a vocational school in 1932. Soon he became assistant engineer and was made an engineer at the age of 20, in Novosibirsk.

During the war his team expanded the list of routine repairs they themselves performed, thus reducing the amount of repair work done at the roundhouse, cutting down demurrage, enhancing the serviceability of the locomotive and lowering maintenance costs. Their locomotive covered 100,000 kilometres without capital repairs.

Lunin's example was widely emulated. The government conferred on him the title of Hero of Socialist Labour, and the people elected him to the Supreme Soviet of the U.S.S.R. Lunin graduated from a higher educational institution and was subsequently put in charge of an important railway line. Lunin is one of the many rank-and-file workers who have risen to high executive posts.

In the third and final phase of the war (1944-45), the railways had to transport troops, military equipment and material resources over huge distances to help completely rout the enemy on the Western frontiers of the U.S.S.R. and beyond them, and in August and September 1945 in the Far East.

The following figures illustrate the scope of rehabilitation work on the railways. In the war years 51,000 kilometres of tracks, or almost 50 per cent of the total pre-war length of railways, were restored.

Moreover during the war over 10,000 kilometres of track were laid. Among the most important railways built in that period were the Soroka-Obozerskaya line, which made it possible to establish communications with Murmansk; the Kizlyar-Astrakhan line, whose construction improved the supply of Soviet troops in the North Caucasus; the Kotlas-Vorkuta line, which carried Pechora coal to the central regions; the Akmolinsk-Kartaly line, which transported Karaganda coal to the Urals, and the Saratov-Stalingrad line, which supplied the Soviet troops fighting at Stalingrad.

The other branches of transport had to cope with similar tasks.

The months-long defence of Odessa and Sevastopol on the Black Sea coast would have been impossible were it not for the courage of merchant seamen.

Leningrad, which was almost completely encircled by the enemy, could not have put up the heroic resistance it did were it not for the supplies delivered by lorries over the frozen Lake Ladoga. And it would be hard to imagine how thousands of partisan detachments could operate behind enemy lines without the help of civil aviation pilots who risked their lives each time they flew a mission over occupied territory.

Every member of the great army of transport workers contributed his bit to the rout of the enemy and the country's liberation from nazi invaders.

5. Finances During the War

The financial system, always an important factor of planned economy, played a highly significant role in radically reorganising the Soviet Union's wartime economic activity.

With budget allocations, credits and money it ensured the fulfilment of the following fundamental tasks: redistribution of the national income in conformity with wartime requirements, redistribution of material resources with a view to the priority development of heavy and defence industries and enforcement of strict control over production and distribution of products.

It goes without saying that the leading role in the financial system is played by the state budget where the bulk of the national income is concentrated. In the conditions of wartime economy, its pattern changed drastically, as evidenced by the composition and the sum of its revenues and expenditures (in thousand million rubles):

	1940	1943	1944	1945
Total revenue,	180.2	202.7	268.7	302.0
of which:				
Turnover tax and deductions from profits	127.6	91.1	116.3	140.0
Taxes from the population	9.4	28.6	37.0	39.8
State loans and lotteries	11.5	29.0	32.6	29.0
Total expenditure,	174.3	210.0	263.9	298.6
of which:				
Defence (People's Commissariats of Defence and Navy)	56.7	125.0	137.7	128.2
National economy	58.3	33.1	53.7	74.4
Social and cultural measures	40.9	37.7	51.3	62.7
Excess of revenue over expenditure	5.9	—	4.8	3.4

Budget receipts in 1941 and 1942 declined due to the damage inflicted by the Germans to the economy. Later on, however, budget receipts steadily increased and in 1945

were almost 80 per cent above 1940. As before, the chief source of revenue were government enterprises and organisations which paid the established taxes and deductions. Their share in the budget, though somewhat decreased, amounted to about 50 per cent. The population also increased its contribution to the state income; income tax, which accounted for 5 per cent of the budget before the war, now came to 13-14 per cent.

The people also replenished the budget by subscribing to state loans, purchasing lottery tickets and making voluntary contributions to the defence fund. The subscription to wartime loans yielded 93,000 million rubles, while four lotteries in which the prizes were money or various commodities gave the budget 12,000 million rubles.

This assistance testified to the lofty patriotic sentiments and wholehearted desire of the population to hasten the liberation of their country from nazi occupation.

In those days people donated to the State Bank large sums of money, state bonds, precious metals and other valuables. This brought the state an additional 18,000 million rubles.

The expenditure side of the budget also underwent serious changes during the war. Defence expenditures jumped by 21,600 million rubles in the latter half of 1941.

In the next three years (1942-44) they annually rose by 10,000-15,000 million rubles and again decreased by 9,500 million rubles only in 1945. All told, defence outlays during the war amounted to 582,000 million rubles, or to more than three times the 1940 budget revenue. Each day of the war cost the country over 400 million rubles. Outlays on the economy and social and cultural needs were substantially pared down, particularly during the first years of the war. But with the consolidation of the military economy, the government increased allocations for economic and cultural development.

In 1944 the share of defence expenditures decreased in comparison with the preceding year, although in terms of absolute figures they continued to grow. The huge expenditures for defence, economic reorganisation, evacuation of enterprises and many other undertakings during the war required a great deal more money than the state could afford. Therefore, in the first two and a half years of the war, that is, to the end of 1943, the budget showed a deficit.

To balance the budget it was necessary to mobilise all the material resources and state reserves. The shortage of currency was covered by additional emission.

Bourgeois governments quite frequently issue money even in peacetime to balance their budgets. But this measure always has a detrimental impact on their economy, for it brings inflation in its wake and worsens the position of the working people.

The socialist state, which resorted to emission as an inevitable measure in the period of the greatest difficulties, took all this into consideration.

The amount of banknotes in circulation during the war increased by approximately 300 per cent, whereas in the First World War the amount of money in Russia increased 14 times over. In some capitalist countries the issue of money during the Second World War assumed greater proportions, although this measure was not as vitally essential as it was in the U.S.S.R.

Money circulation in the U.S.S.R. was somewhat impaired by the financial subversion of the nazis who spread a large amount of counterfeit Soviet banknotes in the occupied areas.

The Soviet credit system, and the establishment of the State Bank in particular, played an important role in accumulating the funds and material means necessary for victory over the enemy. In granting credits, the State Bank gave priority to the defence industry, extended big loans to the enterprises evacuated to the East and financed wartime economic rehabilitation.

The clearing centre of the economy, the State Bank organised proper accounting of all deliveries to the armed forces, and ensured the settlement of accounts between various organisations for the evacuated commodities and material values.

As the centre which issues currency and clears accounts, the State Bank managed to accumulate sufficient ready cash and tapped new sources for obtaining money to cover war expenditures and satisfy the requirements of the economy.

Besides, the State Bank exercised control with the ruble over economic institutions.

The difficult military and economic situation in the country in the early phase of the war caused the State

Bank sharply to decrease its credit investments in economic development. But they again began to grow early in 1943 and increased by about 6,000 million rubles in that year.

Towards the close of the war the amount of credits by the State Bank to finance the economy was 8.2 per cent above the pre-war figure (55,000 million rubles on January 1, 1941, and 59,500 million rubles on January 1, 1946).*

The socialist system of economy thus emerged with flying colours from the rigid test to which it was subjected by the bloodiest of all the wars in history. The Soviet people's victory in the Great Patriotic War was a victory of the socialist system of economy over the capitalist mode of production, and strikingly demonstrated its unquestionable superiority.

* M. S. Atlas, *Razvitiye Gosudarstvennogo Banka SSSR* (Development of the U.S.S.R. State Bank), Gosfinizdat, 1958, p. 120.

Chapter IX

POST-WAR ECONOMIC REHABILITATION AND DEVELOPMENT IN THE PERIOD OF THE FINAL VICTORY OF SOCIALISM (1946-58)

1. General Situation

The Great Patriotic War ended in complete victory for the Soviet Union, its armed forces and its economic and political system. The radical changes in the world and at home left an imprint on the entire course of the country's further development.

One of the most salient features of the post-war international situation was the aggravation and further development of the second stage of the general crisis of capitalism. As a result of the rout of the nazis by the Soviet Army and the sweeping wave of revolutions in Europe and Asia, Albania, Bulgaria, East Germany, Hungary, Czechoslovakia, Poland, Rumania and Yugoslavia broke away from the capitalist system. Subsequently the same was done by China, North Korea and North Vietnam, and then by Cuba, which became the first socialist state in the Western Hemisphere. The people's democratic system won in countries with a population of more than 800 million. The people acquired broad democratic rights and freedoms and carried out important socio-economic changes (agrarian reforms, nationalisation of industry, transport and banks).

The victory of the revolution in the People's Democracies ushered in a new stage in the development of *world socialism*. Before the Second World War, the socialist system accounted for 17 per cent of the world's territory and about 9 per cent of its population. After the war these figures

rose to 26 and almost 35 per cent respectively. Socialism became a powerful world system. The balance of forces tilted in favour of socialism.

Another factor influencing international affairs was the acquisition of independence by the majority of Asian and African countries as a result of the development of the second stage of the general crisis of capitalism. India, Burma, Egypt and many other countries began exerting an increasing influence on the course of world history. The liberation struggle in the African countries is coming to a successful conclusion.

Most of the countries taking the road of independent development established friendly economic, political and cultural relations with the Soviet Union and other socialist states.

However, there were also extremely negative developments in world affairs. The U.S. monopolists supported by other imperialist powers, took desperate steps to consolidate their badly shaken positions.

The U.S.A. knocked together aggressive imperialist blocs and, bent on establishing its hegemony, plunged the world into an arms race. The imperialists' manoeuvres exacerbated the international situation and forced the peace-loving peoples to strengthen their defences.

It is no less important to examine the internal economic situation in the U.S.S.R. immediately after the war.

Peace in the world made it possible for the country fully to mobilise its resources to develop all the branches of its economy. But the war had inflicted colossal losses on the U.S.S.R. and its productive forces. It took a toll of more than 20 million lives and destroyed about 30 per cent of the country's national wealth. The nazis razed 1,710 towns and more than 70,000 villages, and partially or completely destroyed about 32,000 industrial establishments, 65,000 kilometres of railways, over 100,000 collective and state farms and machine-and-tractor stations. All in all, they plundered or destroyed 679,000 million rubles worth (in pre-war prices) of material values. Add to this the funds expended on the war and on economic reconstruction and the losses suffered as a result of enemy occupation, and you will see that the losses sustained by the Soviet economy amounted to approximately 2,600,000 million rubles (in pre-war prices).

After the war it became imperative rapidly to reorganise all branches of the economy along peaceful lines and to take urgent steps to rehabilitate it. Accordingly, the U.S.S.R. Supreme Soviet, early in 1946, adopted the fourth five-year plan of economic development for 1946-50.

Its chief objective was *"to restore the country's war-ravaged areas, to attain the pre-war level of industry and agriculture, and then to surpass that level considerably"*.*

The plan laid stress on the priority rehabilitation and development of heavy industry and rail transport, without which there could be no question of restoring and further developing the economy.

It was planned, on this basis, to secure technical progress, restore and reinforce the material basis of agriculture, boost the production of consumer goods, raise the productivity of labour, increase the national income, expand trade, etc.

The target was not only to attain the pre-war level of output but considerably to surpass it. According to the plan, the national income in 1950 was to increase by 48,700 million rubles, or by 38 per cent, over the 1940 figure, industrial output by 66,500 million rubles, or by 48 per cent above it. The output of electricity was to increase by about 75 per cent and that of automobiles by more than 200 per cent as compared with the pre-war level.

Consequently, economic rehabilitation as such was to take up only a part of the five-year plan.

The Soviet people set out enthusiastically to achieve the plan targets. These were years of heroic labour. Socialist emulation assumed unprecedented proportions, with nearly 90 per cent of the industrial and office workers taking part.

Having successfully fulfilled the fourth five-year plan, the country embarked upon the fifth five-year plan (1951-55). Adopted at the Nineteenth Party Congress in October 1952, it concentrated on the attainment of still greater goals. Industrial production was to increase 70 per cent, with gross industrial output growing by an average of 12 per cent a year.

* *Direktivny KPSS...* (Directives of the C.P.S.U. ...), Vol. 3, 1958, p. 117.

Once again priority was given to the development of heavy industry, the plan providing for high rates of output growth in the iron and steel, coal, oil and machine-building industries, and in power engineering.

The output of the machine-building and metalworking industries and the capacity of the power stations were to be nearly doubled, and the capacity of hydroelectric stations was to be trebled.

In agriculture, the task was to raise the yields of all crops, to increase the livestock population and its productivity, and to raise the total and marketable output of crop-farming and animal husbandry.

The national income was to rise 60 per cent, and it was planned substantially to improve living and cultural standards.

Important changes were made in the plan's targets and its practical fulfilment in the process of its implementation.

Particular emphasis was laid on accelerating technical progress in industry, on the more intensive development of the branches producing consumer goods and on the improvement of the situation in agriculture.

These measures were largely responsible for expediting progress in the economy in the last years of the fifth five-year plan and in the sixth five-year plan periods.

The fifth five-year plan was fulfilled ahead of schedule.

The Twentieth Party Congress in February 1956 examined the results of economic development in that period and discussed the directives for the sixth five-year plan of economic development for 1956-60.

The principal aims of the new plan were "*to assure—by means of priority development of heavy industry, continuous technical progress and higher labour productivity—a further powerful expansion of all branches of the national economy and a steep rise in agricultural production and, on this basis, to achieve a substantial advance in the material and cultural standards of the Soviet people.*"*

To attain these goals and accelerate economic development it was necessary to focus attention on the further development of heavy industry, consistently fulfil Lenin's behests concerning the electrification of the country, pro-

* *Resolutions of the 20th Congress of the C.P.S.U.*, Moscow, 1956, p. 33.

mote the building industry, make full use of the vast natural resources and consistently introduce advanced methods of production and improve its organisation.

The sixth five-year plan, whose purpose was to strengthen the country's economy and its defence potential, was highly appreciated by Soviet people. As in the past, they launched a mass socialist emulation movement for its fulfilment. The results achieved in 1955-58 showed that the Soviet economy was more than ever on the upgrade.

At the same time it was becoming increasingly obvious that the Soviet Union was nearing a qualitatively new phase in its development. The first years of the sixth five-year plan period witnessed the consummation of the Soviet people's prolonged struggle for socialism.

In the international sphere this meant the final victory of a new type of social relations, of socialism, and preclusion of any possibility of capitalism being restored in the U.S.S.R.

In the internal economic sphere it signified that production had reached a level when it could fully satisfy the requirements of the socialist state and become the foundation for the creation of the material and technical basis of communism.

The implementation of the plan, however, revealed that it had failed to take into account some basic problems of economic development and newly-discovered production reserves.

In view of the above, a new economic development plan had to be drawn up. Accordingly, the State Planning Commission of the U.S.S.R. worked out a seven-year plan for 1959-65, which ushered in a new period in the life of the U.S.S.R.—the period of full-scale communist construction.

2. Economic Rehabilitation in 1946-48

The restoration of the war-ravaged economy was begun when the war was still going on. At that time, however, the main efforts were directed at smashing the enemy and liberating the occupied areas. Consequently, 1945 was not only a year of the victorious conclusion of the war but also one of the economy's reconversion to peace uses. This process, which continued throughout 1946, was accom-

panied by a certain decline in the volume of industrial output, especially in heavy industry, which required most reconstruction. In 1946 the volume of industrial output dropped to 77 per cent of 1940, although towards the end of the war it was 92 per cent of the pre-war level.

But that was as low as it ever went. Soon industry began to pick up rapidly and then by far surpassed the pre-war level. In 1947 industrial production rose 22 per cent and in the following year 27 per cent. The total volume of output in 1948 topped the pre-war figure by 18 per cent. Moreover, one per cent of growth in the fourth five-year plan period stood for 32,000-34,000 million rubles worth of industrial production.

The key branches of heavy industry were given priority in rehabilitation, although this called for the greatest financial and labour outlays.

Here is one example. The fuel situation was extremely difficult and the country urgently needed Donbas coal. But the retreating nazis had either blown up, flooded or filled almost every pit with rock.

To restore the pits the miners had to pump out 650 million cubic metres of water, or as much as there is in a lake 65 square kilometres in area and 10 metres deep, and to remove as much rock as would have been dug out if a tunnel were to be cut from Moscow to Paris at a depth of 200-700 metres.

This titanic job was done in record time and the country once again began to receive high-quality Donbas coal.

A tremendous amount of work was put in to restore the metallurgical and engineering plants and power stations in the industrial centres of the European part of the U.S.S.R., and particularly in the South.

The Dnieper Hydropower Station, the first sections of the Zaporozhye Iron and Steel Works and the Rostov Farm Machinery Works, and the Nevinomyssk Canal went into operation in 1947. The following year the Kharkov Tractor Plant was rebuilt and the first section of the ferro-alloy works at Zaporozhye, the Serp i Molot Farm Machinery Plant and other industrial enterprises were commissioned.

The rehabilitation of rail transport was no less labour consuming. Under the fourth five-year plan the government allocated 48,100 million rubles for the development of

transport facilities. Towards the close of 1948 the key indices in transport had caught up with and even slightly surpassed the 1940 figures. Road freightage increased by about 50 per cent.

Comparing the rehabilitation job done in the fourth five-year plan period with that after the First World War and the Civil War in 1921-25, one will see, firstly, that in 1946-48 it was done nearly twice as fast, though the volume was much greater than in 1921-25; secondly, industrial enterprises were not only restored but equipped with new modern plant, and, thirdly, unlike in the NEP period, all this was done by the socialist state itself, without the assistance of private or foreign capital.

The rehabilitation of agriculture was attended by specific but no less serious difficulties. The situation was complicated by a drought in 1946 which caused crop failures in the Ukraine, Moldavia, the Central Black-Earth area and in the Volga area.

Moreover, the state could not allocate sufficient sums for agriculture because the bulk of its funds were channeled into industry. Moreover, there were frequent mistakes and miscalculations in the administration of this branch of the economy.

As a result, agriculture lagged behind in the early post-war years, causing food shortages in the country.

Its rehabilitation nevertheless made fairly good progress, and in 1947 crop capacity reached the pre-war level. The livestock population was in the main restored, with the exception of pigs whose number was still 60 per cent of the pre-war figure.

Considerable increase in the production of food made it possible to replace rationing with free trade. The government decision adopted on December 14, 1947, said in part: "The rationing of food and manufactured goods and the high commercial trade prices will be abolished and uniform lower state retail prices on food and manufactured goods introduced as of December 16, 1947." Trade was thus also rehabilitated in 1948.

Increased production of consumer goods and expanding commodity circulation made it possible systematically to reduce the prices of basic commodities. In 1948 price cuts gave the population an additional annual income of 86,000 million rubles. State retail prices of all goods were reduced

by 17 per cent from those prevailing in the last three months in 1947.

At the same time, a currency reform was carried out for the purpose of adjusting the circulation of money which was impaired during the war.

In conditions of peace, when the foremost task was that of rehabilitating and developing production, urgent measures had to be taken to strengthen the country's financial system.

Accordingly, the government in 1947 issued new money and withdrew all counterfeit and depreciated old banknotes from circulation. The money in hand was exchanged at the rate of 10 old rubles for one new ruble, while money deposited in savings banks or the State Bank was exchanged as follows: accounts of up to 3,000 rubles were exchanged ruble for ruble, from 3,000 to 10,000 rubles—three old rubles for two new ones, and accounts of more than 10,000 rubles at the rate of two old for one new ruble.

In the case of the current and other accounts which the co-operative organisations and collective farms kept in the State Bank, the money was exchanged at the rate of five old rubles for four new ones.

All formerly issued internal loan bonds were exchanged for new bonds at the rate of three to one.

The reform did not affect the wages of industrial and office workers, nor the incomes of the collective farmers or other sections of the population. In short, they continued to receive the same amount.

The money reform did away with the aftermath of the war in money circulation, raised the purchasing power of the Soviet ruble, facilitated the abolition of rationing and paved the way for retail trade at uniform prices. It enhanced the role of money in the national economy, made it possible to raise the real wages of industrial and office workers and the incomes of the rural population, and to improve living standards.

After the war all capitalist countries were beset by an unprecedented money chaos, acute inflation and rising costs of living which resulted in the further impoverishment of wage-earners. Their chronic disorganisation in the sphere of circulation mirrored the growing aggravation of the general crisis of capitalism.

In the U.S.S.R., on the other hand, money circulation was normalised within two or three years after the war's

end. This is borne out by the fact that in the very first post-war year the state budget revenue topped expenditure by 17,900 million rubles. In 1947 and 1948 the figures were 24,700 million and 39,600 million rubles respectively.

It thus took the Soviet people three years in the fourth five-year plan period to rehabilitate the war-damaged economy and create the prerequisites for the subsequent growth of all its branches.

3. Upsurge in Industry in the Fourth, Fifth and Sixth Five-Year Plan Periods

Soviet industry made great headway in the post-war plan periods. In the fourth five-year plan period, over 6,000 industrial enterprises, not counting the small ones, were commissioned, in the fifth five-year plan period—over 3,000 large industrial projects, and in the first three years of the sixth five-year plan period no fewer than 800 enterprises were built every twelve months. As usual, priority development was given to heavy industry.

Especially important were the very powerful hydro-electric stations built on the Volga, the Dnieper and the Angara and also the world's first atomic power stations. Big iron and steel works were built in Transcaucasia, at Cherepovets and in Siberia.

Vastly rich oilfields were made operational east of the Volga, and the world's longest gas pipelines were laid (including the 1,300-kilometre pipeline between Stavropol and Moscow).

Among the largest projects completed after the war is the 101-kilometre Volga-Don Canal with its numerous dams, sluices and reservoirs, including the Tsimlyansk Sea which is 180 kilometres long and 18 to 30 kilometres wide. The canal has merged the White, Baltic, Caspian, Azov and Black seas into a single water transport system.

Much attention in the post-war five-year plans was devoted to the construction and reconstruction of engineering plants. The efforts of the nation were concentrated on the technical improvement of industry on the basis of electrification, complex mechanisation and automation.

Obsolete plant was replaced with up-to-date highly-efficient machinery. In the first three years of the sixth

five-year plan period Soviet industry started serial production of nearly a thousand new types of machines, apparatuses and materials.

The introduction of highly-efficient machinery decisively stimulated the growth of labour productivity. Another factor that served to heighten labour productivity in all branches of the economy was the mass movement for improved methods of work. It was then, too, that the movement for a communist attitude to labour, a new progressive form of emulation, took shape and swiftly gained ground.

In industry, the pre-war level of labour productivity was surpassed by 45 per cent in 1950 and by 180 per cent in 1958.

The general results of industrial development in the period of post-war five-year plans may be seen in the following table showing the output in the key industries.

	1913	1940	1950	1955	1958
Coal (million tons)	29.1	165.9	261.1	391.0	496.0
Pig iron (million tons)	4.2	14.9	19.2	33.3	39.6
Steel (million tons)	4.2	18.3	27.3	45.3	54.9
Oil (million tons)	9.2	31.1	37.9	70.8	113.0
Electric power (thousand million kwh) . .	1.9	48.3	91.2	170.1	233.0

In other words, the output of these industrial items increased by about 200 per cent and that of electricity by 380 per cent over the pre-war level.

High rates of growth were also recorded in the light and food industries. This is one of the biggest differences between post-war and pre-war economic development. The expansion of heavy industry made it possible to devote considerably more attention to the production of foodstuffs and other consumer goods.

This is evident from the table on page 221 registering the growth of commodity production.

As a result of the fulfilment of the post-war five-year plans, some industries made substantial headway in their development, and improved their production pattern.

Besides, conditions were created for intensifying the

	1913	1940	1950	1955	1958
Woollen fabrics (million metres)	103.0	119.7	155.2	251.0	303.0
Cotton fabrics (million metres)	2,582.0	3,954.0	3,899.0	5,904.0	5,800.0
Leather footwear (million pairs)	60.0	211.0	203.4	274.5	356.0
Meat (thousand tons)	1,042.0	1,501.0	1,556.0	2,522.0	3,400.0
Fish (thousand tons)	1,018.0	1,404.0	1,755.0	2,740.0	2,900.0
Butter (thousand tons)	104.0	226.0	336.0	459.0	647.0
Granulated sugar (thousand tons)	1,347.0	2,151.0	2,523.0	3,419.0	5,400.0

development of the key industries, first and foremost the chemical industry which had been lagging behind.

The programme for accelerating the development of the chemical industry adopted in May 1958 contained provisions for considerably increasing investments (by about 100,000 million rubles), expanding the production of highly-efficient machinery and apparatus, extending the scope of research, designing, construction and experimentation, and improving the training of specialists and workers.

Special attention was also focused on the gas industry. On August 30, 1958, the central organs issued a special resolution on the further development of the gas industry, which called gas and oil the most economical types of fuel and emphasised their growing importance in the pattern of the country's fuel balance.

This resolution was passed at the time when the principal role in the fuel balance was played by solid types of fuel, most of them mined and fairly expensive. In 1955 solid fuels accounted for 76.5 per cent of the country's fuel balance, oil—for 21.1 per cent and gas for only 2.4 per cent.

The industrial utilisation of natural gas, the cheapest type of fuel, considerably reduced production costs. It was decided, therefore, to raise its production within 15 years to 270,000-320,000 million cubic metres a year, or 13-15 times the amount produced in 1957. If this target is achieved, the calorific effect will be equal to the doubled output of the Donets, Moscow and Pechora coal basins taken together.

Simultaneously, emphasis was laid on the accelerated construction of thermal power plants. Although hydropower

is one of the cheapest kinds of electricity, in certain conditions thermal power stations are more profitable because it takes considerably less time to build them and the outlays per million kw of capacity are substantially lower. It goes without saying that the accelerated construction of thermal power plants did not at all mean that the construction of hydropower stations which produce cheaper electricity would be folded up. On the contrary, construction of hydropower stations, including some of the biggest in the country, continued to grow in scope, but the building of thermal power plants increased sharply, especially in the ensuing years.

During the sixth five-year plan period the pattern of management in industry and construction was substantially modified. To ensure the complex development of industry in the economic areas and closer ties between industrial enterprises within the area, the management of enterprises and construction was transferred to the newly-established local economic councils. The industrial ministries were abolished.

This measure had a certain beneficial effect on the country's economic development. On the whole, however, it did not live up to expectations, primarily because it violated the branch system of industrial management and fostered parochial tendencies that impeded the growth of production.

Subsequently, the territorial principle of industrial management was replaced by a new system of state economic management.

The post-war five-year periods were characterised by the further development and improvement of all forms of transport. As a result of intensive construction, the total length of railways had by 1958 increased to 122,800 kilometres, which was 16,700 kilometres more than in 1940. Their freight turnover had increased to a still greater degree. In 1940 the volume of rail freightage totalled 415,000 million ton/kilometres and in 1958 it was 1,300,000 million ton/kilometres, or over three times more. In this the Soviet Union surpassed the U.S.A. in the last years of the fifth five-year plan period and became first in the world.

The level of technical equipment of the railways had also risen. Before the war the country was just beginning to make diesel and electric locomotives. Towards the close

of the period under review the number topped 1,000 a year. As for passenger and freight cars, the Soviet Union built 1,800 and 40,300 of them in 1958.

At the same time, the weight and speed of freight trains increased and so did the average daily runs of steam, diesel and electric locomotives. The demurrage of freight cars declined, freight costs decreased, and there was a rise in the productivity of labour.

Nevertheless, the condition of rail transport was still below the level required for the economic development of the country. It worked principally on steam haulage, although employment of electric and diesel locomotives would have considerably reduced the consumption of natural fuel and lowered freight costs by more than 30 per cent.

And this while the fifth five-year plan targets for switching transport to modern haulage were fulfilled by only 58 per cent. In this sphere, the situation changed for the better only at the close of the given period. In 1958 the length of railways switched to electric and diesel traction totalled 20,000 kilometres and their share in the total freight turnover reached 26.4 per cent.

Other transport facilities—maritime, river, pipeline, highway and air—were also developing rapidly. This especially applies to oil pipelines.

Air passenger and freight traffic expanded considerably. In 1958 Soviet civil aviation received many giant passenger jets for its domestic and international airlines.

Such were the general results of industrial and transport development in the period under review.

4. Successes and Difficulties in Agricultural Development

At the beginning of this period the situation in agriculture was clearly unsatisfactory. There was a shortage of a whole range of staples. The socialist economy was seriously affected by the disproportion between the rapid development of industry, on the one hand, and the low rates of agricultural growth, on the other.

It was of the utmost importance therefore to speed up the development of all branches of agriculture.

Beginning with the latter half of the fifth five-year plan period, after the C.P.S.U. Central Committee Plenary Meeting in September 1953, the Party and the government took a series of measures to invigorate crop farming and animal husbandry. The comparative backwardness of agriculture was due to the following major causes:

- a) the need to put the maximum effort and means in the preceding period to develop heavy industry to the utmost;
- b) shortcomings and errors in agricultural management.

While the first cause was objective and unavoidable, the second was wholly the responsibility of the people who implemented state policy in this important branch of the economy.

A serious error was the violation of the principle of the material incentive, that is, of encouraging the collective farmers' interest in the results of their labour and in developing production. This principle, which was successfully applied in cotton growing and the cultivation of citruses, was badly ignored in grain farming and stockbreeding.

The purchasing prices fixed for grain, animal produce, potatoes and other vegetables could not sufficiently stimulate production at those collective farms which did not get the expected rewards from the sale of their produce.

The flaws in the employment of the powerful machines the government continued to supply to the machine-and-tractor stations was another factor that retarded agricultural production. This was partially due to the absence of permanently employed tractor drivers, combine operators and other specialists at the machine-and-tractor stations.

Complex mechanisation was also unevenly introduced. Manual labour, which prevailed in such branches as stockbreeding and the cultivation of vegetables, flax and other crops, caused a sharp drop in the productivity of labour, lengthened the period required for the fulfilment of a set job, aggravated the problem of manpower, and increased production costs.

The merger of smaller collective farms into bigger units in 1950 was one of the most effective measures which either completely did away with or at least lessened the influence of unfavourable factors on the development of agriculture. It created conditions for a more efficient use of machinery in the fields, improved employment of agricultural specialists, and so forth.

About 250,000 small collective farms, some of them consisting of as few as 10 or 30 households, were united into 93,000 large farms which had three to four times as much land, more hands, and cattle.

In the fourth, fifth and sixth plan periods the government increased capital investments in agriculture to 135,000 million rubles, and supplied it with large numbers of farm machines. Between 1940 and 1958 the number of tractors almost doubled and topped 1,000,000, the number of grain combines rose from 182,000 to 502,000, and the number of lorries increased from 228,000 to 700,000.

The government put more land to the plough, especially in the Eastern regions, by developing virgin and long-fallow land in Kazakhstan, Western Siberia, South Urals, the Volga area and elsewhere. Tens of millions of hectares of idle land were cultivated and the virgin land areas became a new major grain-producing region and an important supply base of some of the most essential animal produce. Kazakhstan, for example, jumped to second place among the Union Republics (after the Russian Federation) in the output of wool and third (after the Russian Federation and the Ukraine) in the output of animal produce.

Around 350,000 enthusiasts from all over the country moved permanently to Kazakhstan, Siberia and other Eastern areas to take part in virgin-land development and to turn these parts into advanced economic regions. Most of them were young people, YCL members.

The government supplied them with more than 200,000 tractors and a corresponding amount of other farm machinery.

The Party Central Committee and the Soviet Government gave all possible support and encouragement to the collective-farmers' movement for improving production techniques, and in March 1955 adopted a resolution on modifications in the system of agricultural planning which established new methods of collective-farm planning, greatly stimulated local initiative, and made for better use of the arable land.

To enhance the collective farmers' material interest in boosting agricultural output and its marketability, the government raised the procurement prices of grain, animal produce, potatoes, flax and hemp.

The government also revised the system of taxes levied

on the collective farmers and the pattern of compulsory deliveries of products. Since the collective farms had become the country's chief purveyors of farm produce, the government found it possible to abolish as of January 1, 1958, all compulsory deliveries by the collective farmers and workers and employees living in the countryside of farm products grown on their personal holdings.

An important part in strengthening the collective farms was played by the government's decisions, adopted on March 6, 1956, on the Rules of the Agricultural Artel and further promotion of the collective farmers' initiative in the organisation of production and management and on the payment of monthly advances and additional emoluments. Their adoption was warranted by the new conditions in the countryside: the collective farmers' experience in developing multibranch farming, their growing political consciousness, modernisation of collective farms and their reinforcement with skilled personnel and the improved system of material incentives.

In these circumstances, some articles of the Model Rules of the Agricultural Artel, adopted twenty-odd years earlier, had become obsolete and were impeding the further consolidation of the collective-farm economy.

So the central government organs recommended the collective farms to modify the Rules with a view to making better use of local conditions in accelerating the increase of cropping and animal production.

To heighten the farmers' material interest it was suggested that during the year they should be paid monthly advances, and that at least 25 per cent of the cash incomes of all the branches of socialised agriculture and 50 per cent of the cash received as advance payment in the execution of contracts and for compulsory deliveries of agricultural products should be used for that.

A very important measure in those years was the reinforcement of the collective farms, machine-and-tractor stations and state farms with skilled farm machine operators and other specialists and managerial personnel. Between 1953 and 1957 the number of tractor drivers, tractor team leaders and their assistants, combine operators and lorry drivers increased from 1,705,000 to 2,331,000. At the end of 1958 there were almost 500,000 specialists with higher or secondary education working in the countryside.

Of the 76,500 collective-farm chairmen, 27,600 had either higher or secondary specialised education.

One of the most significant changes that took place in agriculture in the sixth five-year plan period was the reorganisation of the technical service.

The state machine-and-tractor stations had played an enormous role in the establishment of the collective-farm system. They were the main base for accomplishing a technical revolution in agriculture and improving farming methods.

The increase in collective-farm output and the desire to encourage the initiative and activity of the collective farmers, however, made it essential to reorganise the machine-and-tractor stations and to sell their machines to the collective farms. By that time the bulk of the collective farms had grown into highly-efficient multibranch economies quite capable of purchasing farm machines from the government and effectively utilising them. The collective farms which lacked the necessary means were given credits and other aid. The sale of agricultural machines to the collective farms was completed in 1959.

The reorganisation of the system of technical services was followed by the modification of the conditions and system of delivery of farm produce.

The implementation of all these measures created favourable conditions for increasing agricultural output.

During the post-war five-year plan periods the crop area increased by 45.2 million hectares to 195.6 million hectares.

In the last five years of the period under review the average annual yields of grain were 39 per cent greater than in the preceding five years.

The livestock population also increased tangibly. On January 1, 1941, the country had 54.5 million head of cattle, and on January 1, 1959, the figure was 70.8 million; in these years the number of pigs increased from 27.5 million to 48.5 million and that of sheep from 79.9 million to 129.6 million. The output of meat rose by 2.8 million tons, milk by 23.4 million tons, and eggs by 113,000 million.

The government measures to reinforce agriculture organisationally and materially had a beneficial effect on the economic state of the collective farms. Their aggregate cash incomes in 1958 topped 130,000 million rubles, or six

times as much as in 1940. As a result, the indivisible funds of the collective farms increased by almost 100 per cent in the last five years of the period under review. The part of the collective-farm income going for the payment of workday units increased correspondingly and the material position of the collective farmers rapidly improved.

Speaking of the indisputable successes of agriculture in the post-war five-year periods, we must emphasise once again that it was still lagging behind the economy as a whole in the rate of growth.

The agricultural output, still far below the required level, increased mainly thanks to the measures taken to enlarge the area under crops and the cattle population, and not as a result of the further intensification of production.

Therefore, the question of boosting agricultural production to the required level was awaiting its solution, and it was given the most serious attention.

5. Development of Science and Culture and Further Improvement of Living Standards

The chief duty of the socialist state is to do everything for the benefit of man. With the rise of industry and agriculture in the post-war period there appeared greater possibilities for raising the living and cultural standards of the population.

In the fifth five-year plan period conditions for improving the living and cultural standards were more favourable than in the early post-war years. In 1950 the national income was 64 per cent above the pre-war (1940) level, in 1955—181 per cent, and in 1958—276 per cent.

As a result, considerably more funds were allotted to raise real incomes.

In the post-war five-year plan periods the government systematically reduced the prices of consumer goods. The results of this policy might be judged by the indices of government retail prices as they were lowered: the last quarter of 1947—100; 1948—83; March 1, 1949—71.1; March 1, 1950—57; March 1, 1951—53.1; April 1, 1952—50; April 1, 1953—45; April 1, 1954—43. Consequently, they were reduced by 56.5 per cent. The food prices, taken separately, dropped by 61.5 per cent.

Eventually it was found to be more expedient to raise real incomes not so much by reducing retail prices as by boosting the wages of low-paid factory and office workers and by increasing government outlays on social and cultural needs.

On January 1, 1957, the wages of workers and employees in the low-paid brackets were raised on an average by 33 per cent, or by 8,000 million rubles a year all told. At the same time, this section of the population was exempted from taxation.

On September 1, 1956, tuition fees were abolished in all secondary and higher educational institutions.

Living standards rose considerably following the expansion of the social security system and assistance to the disabled (pensions, temporary disablement allowances, increased allocations for the maintenance of children's homes, boarding-schools, old people's and invalids' homes). The government also increased its expenditures for the construction of medical institutions, sanatoriums, etc. On the whole, budget expenditures on social and cultural needs rose from 42,000 million rubles in 1940 to 215,000 million rubles in 1958.

Government outlays on social security increased tremendously following the passage of the new pension law by the U.S.S.R. Supreme Soviet in July 1956. By the end of 1956 they had grown by 40,000 million rubles.

The fulfilment of these measures substantially raised the incomes of factory and office workers and collective farmers.

The successful development of the socialist economy and the rising productivity of labour created conditions for shortening the working day. This was accomplished gradually and did not entail a cut in wages. On the contrary, they continued to rise.

On March 10, 1956, the working day preceding days-off and holidays was reduced by two hours.

On July 1, 1956, young people of 16 to 18 years of age were transferred to a six-hour working day and women granted longer maternity leave. In 1957 workers doing heavy underground jobs went over to a six-hour working day, while all other workers, technicians and engineers employed underground, in metallurgical and coke-chemical enterprises, open-cut mines or ore-concentration factories were transferred to a seven-hour working day.

In 1958 the government made another step in this direction. It introduced a seven-hour working day throughout heavy industry.

Increased sales of food and consumer goods strikingly testified to the rise of the material and cultural standards of the population. The total commodity turnover (in prices of the corresponding years) amounted to 175,100 million rubles in 1940, 359,600 million rubles in 1950, 501,500 million rubles in 1955, and 677,000 million rubles in 1958.

Worthy of note is the fact that the demand for consumer goods in villages steadily approached that of the urban population. No less important, however, was the growing demand for high-quality commodities (meat, sausages, butter, eggs, woollen and cotton fabrics, goods for cultural purposes, etc.).

Much was also done to improve living conditions. Extensive housing construction was launched in the fifth five-year plan period but its rate as yet lagged far behind the rate of economic development.

In 1957 the C.P.S.U. Central Committee and the U.S.S.R. Council of Ministers adopted a decision to expand housing construction.* The government planned to build 215 million square metres of floor space by the end of 1960. At the same time, the decision envisaged the building of another 113 million square metres of floor space by the population with government credits.

Time showed that this grand housing programme was successfully fulfilled.

The all-round mighty economic upsurge also directly stimulated scientific and cultural progress.

Public education assumed wide proportions. In the 1958/59 academic year there were more than 50 million people studying in the country, nearly 31.5 million of them in secondary schools.

The training of specialists with a higher education for all branches of the economy and cultural work also made substantial headway. The number of students at higher and secondary specialised educational institutions surpassed 4 million.

* *Direktivы KPSS*... (Directives of the C.P.S.U. ...), Vol. 4, 1958, pp. 749-64.

The number of specialists employed in the national economy and scientific and cultural establishments in 1958 was in the vicinity of 7.5 million. They all had either studied or taken qualification courses at institutions of higher learning.

The training they received and the level attained by science may be judged by the achievements of Soviet scientists, engineers and technicians who had enriched their country and the whole world with magnificent discoveries.

It was in those years that the Soviet Union built the world's first atomic power stations and the world's best jet aircraft. The high level of its science and technology was best illustrated by the launching of three artificial earth satellites and the space rocket which became the first artificial planet of the solar system.

The fourth and fifth five-year plan periods and the first three years of the sixth plan period (1946-58) were thus characterised by the further growth of the socialist economy.

In the last years of this period the level of the productive forces and the relations of production showed that the Soviet Union had completed the construction of socialist society and entered a new stage of development, that of the full-scale communist construction.

Chapter X

SOVIET ECONOMY IN THE PERIOD OF FULL-SCALE COMMUNIST CONSTRUCTION

1. Seven-Year Plan as Part of the General Programme of Creating the Material and Technical Basis of Communism

The Soviet people had in the main built socialist society before the outbreak of the Second World War. The successful fulfilment of the first two five-year plans (1928-37) had led to the establishment of a social system resting on two forms of the socialist ownership of the means of production—state and co-operative and collective-farm. The exploiter classes and, consequently, exploitation of man by man, had been fully liquidated and power in town and country was concentrated in the hands of the working people.

Production was completely subordinated to the needs of the people, and its ultimate goal was and is steady improvement of the living standard.

Since then the fruits of production have been distributed according to the principle of equal pay for equal labour, that is, every worker receives material values in accordance with the quality and quantity of work done.

The socialist economy developed according to plan and assured constant and rapid growth of the productive forces. Rising socialist production enabled the Soviet Union towards the close of the second five-year plan to build a powerful industry and large-scale mechanised agriculture, banish unemployment and poverty, and accomplish a cultural revolution. All these were characteristic features of a socialist society.

Socialism in the U.S.S.R. won its final victory after the Second World War, with the emergence and consolidation of the world socialist system.

Socialism, however, is not the limit of people's aspirations for a better future. It is the first stage of communist society and differs from the second, higher stage in the degree of maturity of the new society, the level of development of the productive forces, relations of production and class consciousness and cultural standards.

In the sixth five-year plan period the Soviet Union reached a new stage in its development, that of full-scale construction of communist society. But it will take relatively long before the material and technical basis of communism is built.

To accomplish this task the U.S.S.R. drew up a 20-year plan setting down the principal targets to be reached by 1980, a seven-year plan covering the period from 1959 to 1965, and a five-year plan for 1966-70.

Consequently, the sixth five-year plan was dropped in 1959 to make way for the seven-year plan of economic development for 1959-65, which was a component of the general programme for the creation of the material and technical basis of communism.

The plan's control figures were discussed at the Party's Twenty-First Extraordinary Congress (January 27 to February 5, 1959).

The Congress decided that the main purpose of the plan in the economic field was to secure "all-round development of the productive forces in our country and, on the basis of the priority expansion of heavy industry, the achievement of a level of production in all branches of the economy which would allow taking a decisive step towards the establishment of a material and technical basis of communism and ensuring the Soviet Union's triumph in the peaceful economic competition with the capitalist countries. The increase in the country's economic potential, the further technical progress in all economic spheres and the continuous growth of the productivity of social labour must secure a substantial rise in the living standard."*

In approving the concrete indices of economic development the Congress took into account the need to win max-

* *Decisions of the 21st Extraordinary Congress of the C.P.S.U.*, Moscow, 1959, pp. 11-12.

imum time in the peaceful economic competition with the leading capitalist states. ~

The seven-year plan provided for high rates of economic growth, as may be seen from the following table.*

	1965 (per cent of 1958)	Average annual growth (%)
National income	162-165	7.2-7.4
Gross industrial output . .	180 (approx.)	8.6
Rail freight turnover	139-143	4.9-5.2
Volume of state investments	180	10.4
Growth of labour productivity:		
a) in industry	145-150	5.5-6.0
b) in building	160-165	8.1-8.7

The 80 per cent growth of industrial output meant that in these seven years it was to increase as much as it had done in all the preceding years of Soviet rule. As in the past, the production of the means of production was to increase at a faster rate (85-88 per cent) than that of consumer goods (62-65 per cent).

In 1965, according to the plan, the Soviet Union was to turn out 65-70 million tons of pig iron, 86-91 million tons of steel, 65-70 million tons of rolled metal, 230-240 million tons of oil, 150,000 million cubic metres of gas, 596-609 million tons of coal, 150-160 million tons of iron ore, and 500,000-520,000 million kwh of electricity. The output of aluminium was to rise 180-200 per cent, refined copper—90 per cent, diamonds 1,300 per cent and chemicals almost 1,200 per cent.

The machine-building industry, whose job is to supply up-to-date equipment to all branches of socialist production, was to increase output approximately twofold.

The gross output of light industry was to rise about 50 per cent and the food industry was to increase its production by 70 per cent.

Far-reaching changes were to take place in the equipment and organisation of socialist industry on account of the complex mechanisation and automation of production and expansion of specialisation and co-operation.

* *Ekonomika SSSR v poslevoyenny period* (Soviet Economy in the Post-War Period), 1962, p. 31.

It was therefore planned to raise the productivity of labour in all industries by 40-50 per cent and to lower production costs by 11.5 per cent.

The growth of labour productivity in 1959-65 was to account for about 75 per cent of the increment in industrial output, 100 per cent of the increase in the output of the collective farms, and for almost 100 per cent of the increase in the volume of assembly and building work and rail freightage.

Under the plan, the countryside was to concentrate on increasing agricultural production. The plan provided for important measures to strengthen the material and technical basis of agriculture and outlined ways for promoting the role played by the state farms in agricultural production, improving the collective-farm system and raising the well-being of the collective farmers.

An indication of the Soviet Union's economic growth in the seven-year plan period was the volume of capital invested in the construction and reconstruction of enterprises which stimulated high-rate expansion of socialist reproduction. The government planned to spend about 200,000 million rubles for this purpose, and approximately 100,000 million rubles more were to be invested by the collective farms and the population. In other words, about 300,000 million rubles (in new money*) were to be expended for this purpose, or as much as in all the years of Soviet rule.

Especially large funds were allocated for boosting industry and rail transport.

As in the past, the plan contained special provisions for expanding the construction of industrial enterprises in the eastern parts of the country with their tremendous untapped natural resources. Investments there were to exceed 40 per cent of the total.

* New money was put into circulation on January 1, 1961. The rate of exchange was established at 10:1, that is, ten old rubles for one new ruble. Commodity prices and service costs were reduced accordingly.

Simultaneously, the gold content of the ruble was increased to 0.987412 grammes of pure gold and its exchange rate was raised (in the case of U.S. currency, for instance, it was set at 90 kopeks for \$1). The State Bank was authorised to pay one ruble for one gramme of pure gold.

The ruble was thus turned into a still more powerful instrument of Soviet economic development.

The plan envisaged important measures for raising people's welfare and developing education and culture.

Closer links were to be established between school and life through expanding general secondary education, increasing the number of evening or correspondence courses at higher educational institutions, and enlarging the network of specialised secondary schools with students participating in all practical matters of communist construction.

As a result of the growth of the national income (by 62-65 per cent) it was planned to increase the real incomes by about 40 per cent. The plan provided for a raise in wages for people in the low- and middle-wage brackets, and the transition of all factory and office workers to a seven-hour working day.

In fulfilling the seven-year plan Soviet people not only played a significant part in the economic construction of their country but greatly contributed to the strengthening of the world socialist system and the position of the forces standing for world peace and progress.

2. The Results of the Seven-Year Plan in Industry and Transport

The results of the seven-year plan were summed up at the Twenty-Third C.P.S.U. Congress, held from March 29 to April 8, 1966. The Congress pointed out: "Having fulfilled the seven-year plan, the country made an important step forward in building the material and technical basis of communism."*

During the seven-year period the volume of industrial production increased by 84 per cent instead of the planned 80 per cent. The fixed production assets increased by 90 per cent. The national income, used for consumption and accumulation, in 1965 was 53 per cent above 1958.

All this was achieved thanks to the selfless efforts of the workers, technicians and engineers, their ingenuity and initiative.

Socialist emulation in the seven-year period rose to a

* 23rd Congress of the C.P.S.U., Novosti Press Agency Publishing House, Moscow, 1966, p. 289.

still higher rung inasmuch as "it is only socialism which, by abolishing classes, and, consequently, by abolishing the enslavement of the people, for the first time opens the way for competition on a really mass scale".*

The working people in town and village launched the movement for the pre-schedule fulfilment of planned targets in the very first months of the seven-year plan period. The new stage which emulation entered in these years was that of the creation of the material and technical basis of communism which is indissolubly bound up with the cultivation of a communist attitude to labour in all Soviet people.

The idea of emulation for communist labour, and for raising production to a level meeting the requirements of communism, the highest form of social organisation, thus sprang up from the very midst of the people.

High labour productivity, however, requires an adequate material basis, an appropriate level of technical equipment of production, and constant scientific and technical progress in all branches of the economy.

This explains the great importance attached by the socialist state to the all-round, planned improvement of equipment and technology and increased organisation and efficiency of production.

In the seven-year period the different branches of the economy received more than 20,000 new types of machines, mechanisms, apparatus and other equipment and about 6,300 devices for controlling and automating production. At the same time, several thousand types of machines whose design had become obsolete were taken out of production. Hundreds of thousands of units of technological equipment were brought up to date at engineering, metal-working and other industrial enterprises.

Technological progress was largely promoted by inventors and rationalisers who made over 26 million inventions or suggestions to raise production efficiency. The bulk were accepted and saved the country over 10,000 million rubles in the seven years ending 1965.

A distinctive feature of the Soviet economy in these years was further improvement of the pattern of industrial production and the achievement of a more efficient balance

* V. I. Lenin, *Collected Works*, Vol. 27, p. 259.

between its branches, mainly as a result of judicious use of capital investments.

The total volume of investments in the period of the seven-year plan was to have been nearly 200,000 million rubles. Actually, together with co-operative organisations, the government invested more than 223,000 million rubles. By way of comparison it may be said that in the preceding thirteen years (1946-58) the total sum invested was 146,200 million rubles.

From 1946 to 1958 investments amounted on the average to 11,250 million rubles a year, and during the seven-year plan period they rose to 31,860 million rubles.*

About 5,500 big industrial enterprises were built and commissioned during the seven years, as well as a large number of new workshops at the factories that had been rebuilt or enlarged.

Among the major projects erected in these years were the world's biggest hydropower stations at Volgograd, Bratsk, Kremenchug, Votkinsk and Kiev.

The power grids built in this period also have no equal in the world, as for example, the 1,000-kilometre 500,000-volt transmission line from Volgograd to Moscow and the Trans-Siberian 500,000-volt grid linking the Irkutsk power system with the Krasnoyarsk and West-Siberian systems.

Among the biggest and most important iron and steel enterprises commissioned during the seven-year plan period were the West-Siberian Iron and Steel Works, the Kachkanar Concentrating Mill in the Urals, the powerful concentrating mills at Novo-Kramatorsk, the Southern Combine No. 2 and the Central Ore-Dressing Mill at Krivoi Rog, the Korshunovo and Ingulets ore-concentration factories, tens of blast, open-hearth and electric steel-smelting furnaces, a large number of Bessemer converters, rolling mills and coking batteries.

Soviet metallurgy has considerable achievements to its credit. In a number of technical and production indicators it is first in the world. Suffice it to say that more than 90 per cent of Soviet metal is smelted in furnaces equipped with automatic devices, which makes it possible sharply to increase their productivity and lower production costs.

* Calculated on the basis of data given in *The U.S.S.R. in Figures for 1965* (Brief Statistical Returns), Moscow, 1967, p. 91.

Production capacities in the chemical industry are growing faster than those in the other industries. An important part here is played by the newly-commissioned synthetic rubber plants in Omsk and Kuibyshev, the Kazan Chemical Works, the Daugavpils, Chernigov and Kirovakan semi-synthetic and synthetic fibre factories, the Nevinnomyssk Mineral Fertiliser Factory, the Navoi and Cherkassy chemical mills, the Gomel Superphosphate Factory, and many others.

Engineering occupies a special place in the entire pattern of industrial production. This branch supplies the country with the means of production without which technical progress—mechanisation, automation, chemicalisation, electrification and utilisation of atomic energy—is impossible.

All this determines both the significance and the share of the engineering industry in the national economy. Together with the metalworking industry, engineering holds first place in the volume of output. It employs approximately 33 per cent of all industrial workers and accounts for about 25 per cent of the industrial fixed assets.

During the seven-year plan period the output of the engineering and metalworking industries increased by 140 per cent.

The construction of new and enlargement of old industrial enterprises made it possible considerably to increase the output of all essential machines and equipment. The production of metal-cutting lathes, for instance, rose from 138,000 in 1958 to 185,000 in 1965, looms from 14,400 to 24,300, forging equipment from 26,200 to 34,400 units, electric locomotives from 344 to 641, motor cars from 511,100 to 616,400, tractors from 220,000 to 355,000, etc.*

Soviet achievements in the peaceful uses of atomic energy are universally known.

The repeated successful launchings of manned Soviet spaceships have strikingly demonstrated the indubitable superiority of socialism in translating into reality the gains of the scientific and technical revolution. In March 1965 Soviet cosmonaut Alexei Leonov became the first man to walk in outer space. It was a Soviet spaceship that made

* *The U.S.S.R. in Figures for 1965*, Moscow, 1967, pp. 53-54.

the first soft landing on the Moon and a Soviet sputnik that became the first artificial satellite of the Moon.

In these years rapid headway was also made by the lumber, paper and woodworking industries and all transport and communication facilities.

A distinguishing feature of industrial development was that the light and food industries, especially the production of durable consumer goods, developed faster than in the preceding five-year plan periods.

From 1959 to 1965 Soviet industries produced 46,000 million rubles worth of various items in excess of plan.

Indicative in this respect are the comparative figures showing the increase in the output of key industrial goods.*

	1958	Target figures for 1965	Actual output in 1965
Pig iron (million tons)	39.6	65-70	66.2
Steel (million tons)	54.9	86-91	91.0
Rolled metal (million tons)	43.1	65-70	70.9
Oil (million tons)	113.2	230-240	242.9
Coal (million tons)	493.0	596-609	578.0
Electric power (thousand million kwh)	235.0	500-520	507.0

These figures disclose a substantial growth in production between 1958 and 1965 and show that all planned targets, with the exception of coal, were reached.

The same may be said of all types of transport. Take the railways, for example. The length of electrified railways increased from 20,000 to 79,700 kilometres, freight turnover from 1,302,000 million to 1,950,000 million ton/kilometres, and freightage from 1,616,900 to 2,415,300 tons.

The rolling stock was replenished with new types of electric and diesel locomotives and large-capacity freight cars. The rolling stock exploitation plan, envisaging reduction of empty runs and demurrage and increase in the weight of freight trains, was fulfilled.

Sea, river, oil pipeline, highway and air transport also overfulfilled the plan.

Speaking of the major successes in industry and transport during the seven-year plan period, one must say that

* *The U.S.S.R. in Figures for 1965*, Moscow, 1967, p. 52.

there were certain shortcomings in their work too. The resolution of the Twenty-Third C.P.S.U. Congress noted the following negative factors: the output of some items in the chemical industry, engineering and the fuel industry fell short of the target; the rate of growth of production and labour productivity somewhat slowed down in the last years of the seven-year period; the efficiency of production assets and the effectiveness of capital investments dropped, and there were delays in starting new enterprises.

The reasons for these negative factors, the Congress pointed out, stemmed from drawbacks in economic management which had become particularly manifest in the last years of the plan period. The poor harvests in 1963 and 1965 also had an adverse effect on economic development. It should also be noted that in view of the deteriorating international situation the government had to divert additional funds for reinforcing the country's defences.

Measures to eliminate the shortcomings in economic management were taken at the end of 1964, when the C.P.S.U. Central Committee rejected all that had not passed the test of time and was impeding progress.

At the close of 1965 the Communist Party and the Soviet Government passed a decision to reorganise industrial and economic management with a view to improving economic planning and enhancing the role of material and moral stimuli in the development of production.

The reorganisation of economic management is conducted along the following principal lines: a) improvement of the scientific level of government planning; b) extension of the initiative and economic independence of industrial enterprises and combines, and c) wider introduction of cost-accounting and enhancement of economic stimuli of production with the assistance of such factors as prices, profits, bonuses and credits.

To improve industrial management it was found expedient to place enterprises under the control of industrial ministries vested with adequate rights and fully responsible for the growth of their particular branch of production.

In present-day conditions, the new system of economic management better stimulates production and allows to make greater use of the advantages of the socialist system. It ensures the best possible combination of unified centralised planning with full cost-accounting of enterprises,

centralised branch management with broad local economic initiative, and the principle of one-man management with the increasing role of factory personnel.

3. Agriculture in the Seven-Year Plan Period

Due to certain factors described below output in agriculture increased at a considerably slower rate than that in industry.

In these seven years gross industrial output rose 84 per cent and agricultural output only 14 per cent.

The greatest fluctuations in farm production were recorded in grain: the country produced 134.7 million tons of grain in 1958, 107.5 million tons in 1963, 152.1 million tons in 1964 and 120.5 million tons in 1965.*

This was chiefly due to the extremely unfavourable weather conditions in 1963 and partly in 1965.

The situation was much better in stockbreeding. The number of cattle and pigs increased from 70.8 to 93.4 million and from 48.7 to 59.5 million. This led to a substantial increase in the output of the basic livestock products, as can be seen from the table below.**

The increase in farm output and particularly in the production of grain fell short of the seven-year plan figures.

At its Plenary Meeting in March 1965, that is, in the last year of the plan period, the Party's Central Committee

	1958	1965
Meat (dead weight; million tons)	7.7	9.9
Milk (million tons)	58.7	72.4
Eggs (thousand million) . . .	23.0	29.0

analysed the causes of the slow growth of farm output and mapped out important measures to boost the development of all the branches of agriculture.

The lag in agricultural production was largely due to

* *The U.S.S.R. in Figures for 1965*, Moscow, 1967, p. 67.

** *Ibid.*, p. 72.

shortcomings in its management, inadequate economic measures for promoting its development, and slowness in solving the problem of improving farming methods and raising soil fertility.

The Plenary Meeting emphasised the urgent need to make the most of the objective economic laws and economic levers to promote agricultural production. They included adoption of stable long-term plans determining the volume of agricultural purchases, bringing of the purchasing prices of agricultural products in line with the objective laws of economic development, and enforcement of additional measures materially stimulating collective and state farmers.

The ten-year land-improvement programme adopted in May 1966 provides for irrigation and drainage of large tracts of land, improvement of meadows and pastures, utilisation of peat compost, clearing of arable land of small trees, undergrowth and stones, introduction of measures to combat wind and water erosion, improvement of old and planting of new forest belts, construction of ponds and reservoirs, and so forth.

In the five years ending 1970 it is planned to expend nearly 15,000 million rubles on these measures.

The general emphasis in the matter of overcoming the lag in agriculture is on intensive utilisation of land, improved supply of agriculture with materials and technique, more efficient use of farm machinery, and perfection of the forms and methods of organising and remunerating labour.

Let us take a closer look at each of these questions. Intensification of agriculture means radically improving the use of land, supplying agriculture with the necessary material and technical means, and making the maximum use of farm machines to obtain as much farm produce as possible from each hectare per unit of expended labour.

Until recently agricultural output was increased primarily by putting new lands to the plough. The expansion of the crop area accounted for more than 80 per cent of the increment.

Cultivation of new lands has assumed particularly extensive proportions in the past decade. This is economically profitable and has given the country additional thousands of millions of poods of grain and millions of head of cattle.

Yet, far from all possibilities have been used to increase farm output by raising cropping capacity and livestock productivity. Much has still to be accomplished before Soviet agriculture can catch up with the level of the more advanced capitalist countries (Britain, Denmark and the FRG).

To grow bumper harvests it is extremely important systematically to improve the fertility of soil by introducing organic and mineral fertilisers. So far this has been done on a far from sufficient scale.

The higher crop yields in FRG and Denmark, for example, are due considerably to the wide use of mineral fertilisers in these countries.

Taking into account the vast requirements of agriculture in mineral fertilisers and the increasing part chemistry plays in stimulating the general growth of the country's productive forces, the Soviet Union has stepped up the development of the chemical industry, particularly the production of chemical fertilisers.

In 1965 the government supplied agriculture with 23 per cent more mineral fertilisers than in the preceding year. By 1970 their output is to double to reach 55 million tons (in conventional units).

In agriculture, as in all other branches of the economy, labour productivity in great measure depends on the level and quality of mechanisation.

During the seven-year plan period the country substantially increased the output and improved the quality of farm machinery. The production of tractors jumped from 220,000 in 1958 to 355,000 in 1965, grain combines from 65,000 to 85,800, tractor drills from 186,000 to 262,000, tractor mowers from 76,500 to 122,000, etc.*

Nevertheless, the material and technical basis of agriculture is not extensive enough, and in the next few years the countryside will be supplied with thousands of modern high-efficiency machines.

At present the entire farm-machinery industry is working on new, more economical types of machines, and measures are being taken to expand the production of more powerful tractors and wide-cut and harvesting machines.

* *The U.S.S.R. in Figures for 1965*, Moscow, 1967, pp. 54-55.

At the same time, farmers must make better use of the existing machines, and they have broad possibilities for doing so.

A great deal can be done to boost agriculture by sharply raising the scale of electrification in the countryside. The five-year plan for 1966-70 envisages a considerable increase in the consumption of electricity in agriculture from state power grids.

Better labour organisation and greater material incentives for agricultural workers are other measures that will advance agricultural production.

Despite the great importance of machinery, electric power, fertilisers and other material means of raising agricultural output, their successful utilisation depends entirely on the people.

Collective labour in conditions of the socialist economy makes for greater efficiency provided it is rationally organised and measures are taken to increase material incentives.

Collective-farm development gave rise to a stable and efficient form of labour organisation, namely, permanent production brigade. Producing a limited range of products, the members of these brigades acquired specialities and raised their qualification.

But practice showed the need for improving the forms and organisation of labour; the rising level of mechanisation and specialisation and intensification of production called for changes in brigade composition.

As a result, there has appeared what is called the territorial complex brigade for collective work in different branches of agriculture: field cropping, stockbreeding, vegetable growing, gardening and fodder raising.

This does not mean that specialisation or division of labour does not take place within the brigade. As in the past, farm machinery and implements, draught animals and productive cattle are assigned to the care of individual brigade members or teams.

As regards material incentives, this principle was not always observed in the period of the seven-year plan. To rectify the situation the Party and the government in the summer of 1966 introduced new measures which sharply raised the material incentive of collective and state farmers and workers of other state agricultural enterprises.

The most important stimulus for collective farmers is the system of guaranteed payment for labour in money or in kind based on the rates of wages paid to the corresponding categories of state-farm workers. Under this system, introduced on July 1, 1966, collective farms first lay aside the funds for paying their members and only then for other purposes.

Apart from paying the collective farmers a guaranteed monthly sum for their labour, collective farms, as recommended, pay them for the total volume of work done during the year, after the total sum of the income has been calculated.

To ensure that all collective farms abide by this decision, the Soviet Government extends credits to the farms which meet with difficulties in finding the necessary funds in time.

Another factor stimulating the collective farmers' material interest in production is the recently introduced improved procedure of state purchases of agricultural produce. Since 1965 there have been fixed targets of state purchases operative for a number of years ahead. This makes it possible better to co-ordinate state interests with the interests of collective farms. Besides, the state purchasing prices of certain grain crops have been raised, and surplus products are bought at still higher prices.

These and the many other measures taken by the Soviet Government will help agriculture overcome its lag within the next few years and, consequently, further stimulate the development of the entire economy and raise living standards.

4. Improvement in Living Standards and Progress in Science and Culture

The seven-year economic development plan envisaged a considerable improvement in living standards and development of science and culture. In May 1960, the second year of the plan period, the U.S.S.R. Supreme Soviet allocated an additional 2,500-3,000 million rubles in new money for boosting the textile and footwear industries and considerably enlarging their raw-material base.

There was a substantial increase in the output of the majority of manufactured goods, making it possible to

meet the people's requirements in clothes, fabrics, footwear, kitchen utensils, furniture, electrical appliances, radio and TV sets, washing machines, watches, cameras, and many other items.

There were also sufficient reserves of grain, cereals, sugar, confectioneries, vegetable oil, tinned and other foodstuffs.

Due to the lag in agriculture, however, the seven-year plan targets for the development of light and food industries were not fulfilled and this definitely affected the rate of growth of the national income and the people's material welfare.

Nonetheless, in this period there was a consistent and relatively rapid growth of commodity sales. This is illustrated by the table below, showing the growth in the sale of the basic consumer goods by state and co-operative trade organisations, including public catering establishments (in comparable prices, percentage of 1940).*

The table shows a considerable increase over the pre-war level and in the seven-year plan period itself. The biggest rise was not in the sale of vital commodities but in that of durable and high-quality goods.

On the whole, the country's retail trade increased by more than 50 per cent, from 67,700 million rubles in 1958 to 103,500 million in 1965.

The growth of commodity production and the expansion

	1940	1958	1965
All commodities	100	274	436
Meat products	100	394	671
Fish products	100	345	546
Eggs	100	249	647
Milk and other daily products	100	436	850
Sugar	100	358	565
Silk fabrics	100	992	1,100
Clothing and garments	100	310	524
Knit wear	100	412	826
Leather footwear	100	300	495
Radio sets	100	2,200	3,100

* *The U.S.S.R. in Figures for 1965*, Moscow, 1967, pp. 123-24.

of retail trade were due to the rise of real incomes in town and country.

The average annual wages of factory and office workers rose from 78 rubles in 1958 to 95 rubles in 1965. Add the allowances and benefits received by the population from the public consumption funds (government expenditure on education, cultural development, public health, social maintenance, etc.), and the corresponding figures will be 104 and 128 rubles respectively.

In 1964 and 1965 the wages of over 20 million teachers, doctors and people employed in other public service branches were raised by 23-25 per cent.

The minimum wage was substantially increased by 1965 and so were the pensions paid to invalids and families which had lost their breadwinner.

In 1965 the state pension system was extended to collective farmers, with the result that 6.8 million of them began receiving pensions. Women collective farmers are now granted maternity leaves. In the seven-year period the number of people entitled to pensions increased from 20 to 32 million.

The importance of public consumption funds is growing along with communist construction. Each year the government allocates bigger and bigger sums to provide people with free education and medical service, for the maintenance of kindergartens and nurseries, for social insurance, workers' leisure, and other social and cultural services.

The government expended 21,500 million rubles for this purpose in 1958 and 41,500 million rubles, or almost twice as much, in 1965.

A great deal of attention was given to housing with the result that approximately 17 million apartments and detached houses were built in the seven years. In other words, the total floor space in these years had increased by about 40 per cent over 1958.

An important part in raising living standards was played by the steady reduction of the working day.

In a communist society, Marx said, society's wealth would be judged not by the length of working time but by the amount of free time people would enjoy.

A big step in this direction was made during the seven-year period. Planned transition of all factory and office

workers to a six- or seven-hour working day was completed back in 1960. It should be emphasised that this measure did not entail any wage cuts. On the contrary, in some branches the wages were even raised and a more efficient system of remuneration of labour was introduced.

Longer leisure hours offer additional opportunities for the working people to improve their education by enrolling in evening educational establishments or taking correspondence courses.

The number of people studying in the U.S.S.R. increased from 50 million in 1958 to 71 million in 1965. Secondary school enrolment now totals 48 million.

There were more than 7.5 million people enrolled in higher or secondary specialised educational establishments in 1965. About one million specialists received their diplomas that year.

The U.S.S.R. has about twice as many diploma'd engineers in its economy as the U.S.A., the world's most advanced capitalist state, and this gap is constantly widening.

Science and technology registered considerable progress in the seven-year plan period.

The public health system and organisation of leisure were improved, and medical science scored many achievements.

Literature, television, the cinema and all other forms of art also made rapid headway.

5. Prospects for the Creation of the Material and Technical Basis of Communism

The Soviet Union's entry into a qualitatively new phase of development—the period of full-scale communist construction—called for a scientific analysis and detailed elaboration of the laws governing transition from socialism to communism, determination of the trends in the creation of the material and technical basis of communism, further improvement of production relations and the moulding of the new man.

All these problems are posed and creatively resolved in the C.P.S.U. Programme adopted by the Party's Twenty-Second Congress in October 1961.

The Programme, based on the further development of Marxism-Leninism, contains the following clearcut definition of communism:

*"Communism is a classless social system with one form of public ownership of the means of production and full social equality of all members of society; under it, the all-round development of people will be accompanied by the growth of the productive forces through continuous progress in science and technology; all the springs of co-operative wealth will flow more abundantly, and the great principle 'From each according to his ability, to each according to his needs' will be implemented. Communism is a highly organised society of free, socially conscious working people in which public self-government will be established, a society in which labour for the good of society will become the prime vital requirement of everyone, a necessity recognised by one and all, and the ability of each person will be employed to the greatest benefit of the people."**

The Programme says that the main economic task of the Party and the people is to create the material and technical basis of communism.

This means complete electrification of the country and the improvement on this basis of the techniques, technologies and organisation of production; comprehensive mechanisation of production processes and their increasing automation; widespread use of chemistry in all branches of the economy; further development of new, economically effective branches of production, new types of power and materials; maximum and all-round utilisation of natural, material and labour resources; rapid scientific and technical progress and organic fusion of science and production; a high cultural and technical level for the working people and a high level of productivity of labour in all branches of the economy.

Among these cardinal tasks electrification—the pivot of economic construction in communist society—holds special place.

The Programme calls the expansion of the output of metals and fuels, the basis of modern industry, a major

* *The Road to Communism*, Moscow, 1961, p. 509.

task in the creation of the material and technical basis of communism, and provides for the accelerated development of oil and gas production, that is, of the types of fuel whose economic effectivity is the greatest.

The current stage of the scientific and technical revolution is posing ever more complicated problems before the engineering and chemical industries, transport, communications and agriculture.

In the conditions of large-scale construction of the material and technical basis of communism, it is of the utmost importance to choose the best sites for the productive forces which would save social labour, ensure the composite development of economic areas and specialisation in production. The correct siting of production will make it possible to decongest big towns, level out the economic development of different areas and help eliminate the distinctions between town and country.

The growth of social wealth will in ever increasing measure ensure the satisfaction of the material and cultural needs of the people.

Such, the Party Programme says, are the basic problems which will have to be solved in the process of creation of the material and technical basis of communism.

The first step towards the fulfilment of this task was the accomplishment of the seven-year plan of 1959-65. The Twenty-Third C.P.S.U. Congress, held in 1966, after noting the successful implementation of the seven-year plan, approved the directives for the five-year economic development plan for 1966-70.

The main economic task of the next five years is *"to secure a further considerable growth of industry and high stable rates of agricultural development through the utmost utilisation of scientific and technical achievements, industrial development of all social production and the enhancement of its efficiency, and greater labour productivity, and thereby to achieve a substantial rise in the standard of living and fuller satisfaction of the material and cultural needs of all Soviet people."**

The new five-year plan provides for a substantial growth of socialist production. The amount of capital to be invested in the economy in this period will approximately equal that

* 23rd Congress of the C.P.S.U., Moscow, 1966, p. 321.

invested between 1950 and 1966, while the industrial capacity of the country will increase about sevenfold as compared with 1950.

The national income, the most general index of level of production and the source of its further growth, will increase by 38-41 per cent.

The main tasks of industry in the five-year period are to raise the efficiency of production and its technical level, improve its structure, introduce the production of new goods systematically and speedily, improve quality, and provide the national economy more fully with more effective means of production.

Industrial output will increase by 47-50 per cent. Important changes will be made in the pattern of industrial production, particularly there will be an improvement in the ratio between the production of the means of production (Group A) and the production of consumer goods (Group B).

It is planned to accelerate the increase of commodity production. Having built up a powerful industry, the Soviet Union can now speed up the development of the branches of social production which directly satisfy the material, cultural and other needs of the people. Thus the gap in the rates of growth of the two basic groups of social production will narrow down.

The average annual increase of output in Group A industries has been set at 8.3-8.7 per cent, while Group B industries will raise output by 7.4-7.9 per cent. In the preceding five-year period Group A increased production by 58 per cent and Group B by 38 per cent; the corresponding figures for the current five-year plan period have been fixed at 49-52 and 43-46 per cent respectively.

Provisions have also been made to boost power, engineering and chemical industries, thus increasing the share of the economically most profitable types of production that ensure the technical progress of industry in general. Power output will rise 66-68 per cent, the engineering and metalworking industries will raise production by 60-70 per cent, and the output of the chemical industry will almost double.

The output of key industrial products shall increase as follows:*

* 23rd Congress of the C.P.S.U., Moscow, 1966, p. 335.

	1965	1970
Electric power (thousand million kwh) .	507	830-850
Oil (million tons)	243	345-355
Gas (thousand million cu. m.)	129.2	225-240
Coal (million tons)	578	665-675
Pig iron (million tons)	66.2	94-97
Steel (million tons)	91	124-129
Mineral fertilisers (million tons)	31.3	62-65
Automobiles (thousand units)	616.4	1,360-1,510
Tractors (thousand units)	355	600-625
Fabrics (thousand million sq. m.)	7.5	9.5-9.8
Leather footwear (million pairs)	486	610-630

One way to achieve technical progress is to increase the power of the engines and to install highly-mechanised and automated production lines. In the power industry priority will be given to the construction of large hydro- and thermal power stations with capacities ranging from 2 million to 5 million kw and equipped with power units of 300,000-500,000 and more kilowatts. There will be new powerful blast-furnaces with a volume of 2,700 cubic metres, and the capacity of converters and electric smelting furnaces shall range from 100 to 250 and from 180 to 360 tons, respectively.

The technical level of production will be also raised by the introduction of highly effective technological physico-chemical, electro-physical and electronic processes.

Special attention is focused on improving the quality of production which is equally important for industrial and consumer goods.

In agriculture, the main task is considerably to increase the output of farm and animal produce with the object of satisfying more fully the growing demand for foodstuffs and industry's requirements in agricultural raw materials.

This calls for a substantial acceleration of the growth of agricultural production. With this aim in view it is planned to increase state investments in agriculture by approximately 100 per cent. Between 1966 and 1970 the total volume of agricultural output is to be annually increased by an average of 25 per cent.

The principal way to increase farm output is to raise yields of all crops. Therefore, it is important to make

rational use of arable land, introduce proper crop rotation, plant the best varieties of grain crops, effectively use fertilisers, combat soil erosion and plant forest shelter belts.

A comprehensive land-improvement programme is to be carried out in the current five-year period and collective and state farms are to use more mineral and organic fertilisers.

Incomparably more will be spent on improving the technical equipment of agriculture. Consumption of electric power, for example, will increase by 300 per cent during the five-year period. The state will sell the collective farms and supply the state farms with 1,790,000 tractors, 1,100,000 lorries, 550,000 grain combines, 900,000 tractor and 275,000 lorry trailers, and other agricultural machinery.

All these measures will raise labour productivity in agriculture by 40-45 per cent, lower production costs and ensure higher profitability.

Setting such tremendous targets for industry and agriculture, the C.P.S.U. Twenty-Third Congress took into account that the U.S.S.R. had the economic prerequisites for their fulfilment. Apart from the material conditions, an important part in the fulfilment of the five-year plan will be played by the economic management measures taken in recent years.

In this period steps will be taken to eliminate the gap between the sharply increased scope of production and the need to enhance its efficiency, on the one hand, and methods of economic planning and management and the system of economic stimulation of production, on the other.

This will be achieved by further improving centralised economic planning on the basis of the branch principle of administration, more consistent implementation of the principle of the working people's material and moral interest in the results of their work, promotion of cost-accounting, and utilisation of commodity-money relations in the interests of socialism, particularly of such economic levers as prices, profits, credits and finances.

The development of socialist production will substantially raise living standards. The new five-year plan period might well be called a period of rapid rise of the people's well-being.

The per capita income will mount much faster than in the seven-year plan period, growing by approximately 30 per cent.

Agriculture, light and food industries, trade and public services will develop at a much faster rate than in the preceding seven years.

Collective farmers' incomes from the socialised economy will rise 35-40 per cent, or faster than the wages of factory and office workers. This will also help accelerate the eradication of distinctions between town and country. The living standard will continue to rise thanks to higher remuneration of labour and increased allowances and benefits from the social consumption funds: social security, various grants, pensions, scholarships, paid holidays, free education and medical service, accommodation free of charge or at a discount at sanatoriums and holiday homes, maintenance of children's institutions, etc.

In 1965 these allowances and benefits added up to about 35 per cent of the average wages. By 1970 the figure will be approximately 40 per cent.

Housing is to be substantially expanded. In the preceding five years 393 million square metres of floor space were tenanted, and in the current five-year plan period the country will build more than 480 million square metres of floor space.

There will be a sharp rise in the level of culture and education and in the organisation of holiday facilities.

About 7 million specialists with higher or specialised secondary education will be trained by 1970, or about 65 per cent more than in the five years ending 1965.

The purpose of all these measures is not merely to raise the general level of education and culture but to eliminate the substantial distinctions between mental and physical labour still existing in the Soviet Union.

Thus, step by step Soviet people are creating the material and technical basis of communism. In fulfilling this task and advancing towards communism, they are discharging their internationalist duty to the working people of the world.

On November 7, 1967, the Soviet people enthusiastically marked the 50th anniversary of the October Socialist Revolution.

Remembering Lenin's words that the best way to cele-

brate the anniversary of the great revolution is to concentrate attention on unsolved problems, they launched a country-wide emulation movement for the pre-schedule fulfilment of the targets of the second year of the new five-year plan.

The first two years of the eighth five-year plan have witnessed intense work to promote the new trends in the economic policy set down in the Decisions of the 23rd Congress of the C.P.S.U. and the Central Committee Plenums in the period between 1965 to 1967, and much has already been achieved in this respect.

On the eve of the anniversary the Supreme Soviet of the U.S.S.R. met in session and summed up the results of the fulfilment of the first two years of the five-year plan and approved the economic development plans of the U.S.S.R. for 1968, 1969 and 1970.

In the first two years of the current five-year plan period the national income of the U.S.S.R. annually increased 7.2 per cent while the corresponding figure for the years 1961-65 was 5.7 per cent.

At the same time the average annual growth of industrial production rose from 8.6 to 9.4 per cent, and that of agricultural production from 2.4 to 4.2 per cent.

In the years 1961-65 the real income per capita rose 3.6 per cent annually, while in 1966-67 the figure was 5.9 per cent. Retail trade turnover rose 6 and 8.7 per cent, respectively.

In 1966 and 1967, official Soviet bodies introduced certain changes into the initial figures of the five-year plan, as a result of which the indices of certain types of industrial production approved by the Supreme Soviet of the U.S.S.R. at a session in October 1967 were lowered while others were raised.

On the whole, however, industrial production will increase at a somewhat higher rate than provided for in the Directives of the 23rd Congress of the C.P.S.U.

Thus, the production of the means of production (Group A) will rise 55 per cent as against the planned 49-52 per cent, and the production of consumer goods (Group B) 49 per cent as against the 43-46 per cent envisaged by the Directives.

The Soviet people's standard of living is rising considerably faster than provided for by the Directives. In 1966 to

1967 the average annual increment of the real wages amounted to 5.9 per cent, as we have already mentioned, instead of the planned 5.3 per cent.

In absolute terms, the people's income in 1966 and 1967 was 5,000 million and approximately 6,500 million rubles higher than the sum determined by the Directives.

On the eve of the 50th anniversary a new decision providing for a substantial rise of living was adopted. Its impact will be directly felt by more than 50 million people. It envisages a considerable increase of the minimum wages and also the wages of certain categories of working people, higher temporary disability grants for factory and office workers, longer paid holidays, improvement of the pension scheme for collective farmers, invalids and also for women textile workers performing jobs requiring more intensive labour; and a decrease in the taxes deducted from the wages of factory and office workers.

These measures will cost the government more than 6,000 million rubles in 1968 alone, which is almost as much as had been expended on similar measures in the whole of the last five-year plan period.

Thus, the Soviet Union, the world's first socialist state, celebrated its 50th anniversary in the prime of its strength and might.

"Today, as we mark the 50th anniversary of the socialist revolution," L. I. Brezhnev said, "we can sum up the great results of road we have covered with satisfaction and pride.

"The fully developed socialist society, which has been built in our country, is a society where the guiding principle is 'From each according to his ability, to each according to his work'. The socialist relations of production ensure the planned, stable development of the entire national economy at the modern technical level."*

There is no doubt that the U.S.S.R. has a developed socialist society. Its distinguishing features are a high level of the development of the productive forces, mature socialist relations of production, genuinely fraternal co-operation between the classes transformed by socialism, exemplary political organisation of the people, and unshakeable ideology and high culture of the whole nation.

* L. I. Brezhnev, *Fifty Years of Socialism's Great Victories*, Russ. ed., Moscow, 1967, p. 21.

The Soviet Union had already acquired all these features by the beginning of the 1960s. The 22nd Congress of the C.P.S.U., which adopted the new Programme of the C.P.S.U., determined the main content and the targets of a new period in the history of the U.S.S.R., the period of full-scale construction of communist society.

In a report delivered at the jubilee session of the Central Committee of the C.P.S.U., the Supreme Soviet of the U.S.S.R. and the Supreme Soviet of the R.S.F.S.R. on November 3, 1967, Leonid Brezhnev said: "New tasks face us today, tasks which are new not only in scale, but in character. The question is to make the fullest possible use of the opportunities offered by a developed socialist society. We must learn to use with the maximum efficiency our social achievements and the enormous productive forces of the country, the scientific and technical achievements, and the rising level of culture and education of the Soviet people. Only on this basis will it be possible to build communism and to advance along the road charted by the Party Programme."*

In the economic sphere this means that the further growth of the national economy will depend in ever greater degree on the introduction of measure to raise the efficiency of social production, and to improve the qualitative indices of all branches of economy on the basis of the latest scientific and technical achievements.

Alongside the commissioning of new industrial capacities and the development of new lands in agriculture, the principal attention in economic development is now focussed on making the utmost use of each enterprise, each production unit and each hectare of land.

A very important step towards boosting economic development is the establishment of the optimum proportions and rates of growth for all branches.

A key prerequisite for the successful construction of the material and technical basis of communism, is the improvement of economic management, administration of economy, and the perfection of the system of planning and economic stimulation of production.

The new system of economic management worked out

* L. I. Brezhnev, *Fifty Years of Socialism's Great Victories*, Russ. ed., Moscow, 1967, p. 29.

for all branches of economy at the plenary meetings of the Central Committee of the C.P.S.U. in March and September 1965, is steadily gaining ground in the country. In 1967, more than 5,500 enterprises yielding over 33 per cent of the total industrial output and more than 45 per cent of the gross profit in industry, adopted the new system of planning and economic stimulation.

The experience of these enterprises shows that the efficiency of production increased considerably following the introduction of these measures.

In 1968, the transfer of all industrial enterprises, transport and other branches of economy to the new system will be completed in the main, and the change over to this system will be started in the sphere of construction.

In agriculture, attention is focussed primarily on the fulfilment of the long-term programme of land improvement, the application of chemistry and improvement of farming methods.

The rapid economic development imposes great tasks on Soviet science. Today it is becoming a direct productive force, in the true sense of the word. This applies equally to physics, chemistry, biology, medicine, cybernetics, economics and other branches of knowledge.

While successfully building communist society, the Soviet Union consistently adheres to internationalist principles in its relations with the world's progressive forces, pursues the policy of peaceful coexistence between countries with different social systems and works for peace and progress, just as it has been doing throughout the fifty years of its existence. At all stages of its history it furnished constant and efficient assistance to the world revolutionary movement and in turn enjoyed the support and understanding of the progressive forces in foreign countries, and fought against aggression, colonialism and imperialism.

Today the Soviet Union has greatly expanded and consolidated its many links with other countries. Tremendous progressive changes have taken place in the lives of peoples in the last half century.

A new alignment of forces has appeared in the world under the influence of the ideas of the October Revolution and as a result of internal developments.

A third of mankind has already taken the socialist road. The colonial system has collapsed; more than 70 newly inde-

pendent countries have emerged and are successfully developing on the territory of former colonies.

The revolutionary working-class movement in the developed capitalist countries has increased in scope and holds strong positions.

Today it is no longer the imperialists, but socialism and the anti-imperialist forces that determine the main content and the main direction of social development. Much has already been achieved in securing the unity and solidarity of all contingents of the world revolutionary movement.

In these conditions the Soviet people are irrevocably building the world's first communist society, the mainstay and the hope of the working people of all countries.

REQUEST TO READERS

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